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Bequest of
Dr. George Hempl



A Primer of Classical and English Philology

BY THE

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'You will not find, for so I venture to promise, that this study of words will be a dull one when you undertake it yourselves.'—TRENCH, *On the Study of Words*; Lect. I.

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P R E F A C E

THE object of the present little book is to exhibit some of the more elementary principles of modern philology as applied to the etymology of Greek, Latin, and English words.

In Chapter I, I give the principal points that concern the proper pronunciation of Greek and Latin. For the pronunciation of Anglo-Saxon, the student is referred to Sweet's Anglo-Saxon Primer.

In Chapter II, I show how Greek is usually transliterated, whenever Latin or English words are borrowed from that language. I next state a few laws that govern the combination of letters in Greek; and note the chief vowel-changes in Latin arising from the prefixing of prepositions to verbs.

In Chapter III, I explain what is meant by 'cognate'; with some examples of Grimm's Law as applied to cognate words in Greek, Latin, and English.

In Chapter IV, I note some characteristics of Greek and Latin that are exemplified at every turn when it is desired to compare them with English.

The remaining Chapters are wholly occupied with an exemplification of the principles of gradation; because without a sound knowledge of such principles it is impossible to compare the vowel-sounds in the three languages (Greek, Latin, and English); and until such vowel-changes are rightly understood, no true comparison of cognate words can be made. The reader is referred

to Chapter VI—on Vowel-gradation—of my *Primer of English Etymology* for an account of the seven conjugations of strong verbs in English and some other Teutonic languages; and my chief object, in the present book, is to show how a knowledge of these conjugations may be made to illustrate the equivalent gradations in Greek and Latin. In this way it will be found by no means difficult, not only to understand those gradations, but to remember them. The table at p. 97 gives all the results that are most needed.

I have to thank Mr. P. Giles, our Reader in Comparative Philology, for his kindness in reading over the proof-sheets. For the final form in which the book has appeared, I am of course entirely responsible.

I subjoin a list of the books upon which I have chiefly depended.

CAMBRIDGE;

June 6, 1905.

LIST OF BOOKS MOST FREQUENTLY CONSULTED

- BRUGMANN, K., UND DELBRÜCK, B. *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen*. Erster Band ; zweite Bearbeitung. Strassburg ; 1897.
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- UHLENBECK, C. C. *Etymologisches Wörterbuch der gotischen Sprache*. Zweite Auflage. Amsterdam ; 1900.
- UHLENBECK, C. C. *Etymologisches Wörterbuch der altindischen Sprache*. Amsterdam ; 1898-9.

ABBREVIATIONS. A. F.—Anglo-French. A. S.—Anglo-Saxon. Du — Dutch. E.—English. F.—French. G.—German. Gk.—Greek. Goth.—Gothic. Idg.—Indogermanic. Ital.—Italian. L.—Latin. Lith.—Lithuanian. M. E.—Middle English. O. F.—Old French. O. H. G.—Old High German. O. Lat.—Old Latin. Scand.—Scandinavian. Swed.—Swedish. Teut.—Teutonic. W.—Welsh.

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thus differed from the original Indo-Germanic *u*, which was well preserved in nearly all other languages of the same family, as for instance, in Sanskrit, Latin, Gothic, and Old English. Its primitive sound was, doubtless, the same in Greece as elsewhere, but in Attic Greek it passed into the modified sound at quite an early date. This is shown by the evidence of Latin, which had no such sound in native words, but imitated it when borrowing words from Greek. Hence it came to pass that Latin borrowed the symbol *Y* at the same time, and employed it to designate the Greek sound in borrowed words; and to this day it is called *y grec*, i. e. 'Greek *y*,' in French. Old English had both sounds, viz. original *u*, and a modified *ü* which had arisen from the modification of the old *u*-sound under certain conditions. Hence the Old English scribes availed themselves of the Latin symbols, and very justly employed *u* for the sound of the original Indo-Germanic and Latin *u*, and *y* for the modification of it. By way of a reminder that the latter had a modified sound, they usually wrote a dot above the symbol, so that it appears in Old English MSS. as 'ÿ.'

4. *Diphthongs.* The primitive Greeks pronounced the diphthongs containing *i* and *u* in such a way as to sound each constituent successively; i. e. *ai*, Gk. *ai*, was pronounced (ai), in which short (a) was rapidly succeeded by short (i), the latter becoming a glide or passing into the consonant corresponding to the *i*-vowel. Brugmann formerly represented this glide by the symbol $\dot{i}$, and the consonantal *u* (our *w*) by the symbol $\dot{u}$; and in this way the original Gk. diphthongs could be denoted by $a\dot{i}$, $e\dot{i}$, $o\dot{i}$, $a\dot{u}$, $e\dot{u}$, $o\dot{u}$; written *ai*, *ei*, *oi*, *av*, *ev*, *ov*. But in his *Kurze Vergleichende Grammatik* (1902) he employs the simpler

symbols *ai*, *ei*, *oi*, *au*, *eu*, *ou*. Here *oi* is the E. *oi* in *boil*, and *au* is the G. *au* in *Haus*, or the E. *ou* in *house*. We may add to these the diphthong written *ui*, pronounced as *v* followed by *i*; if we throw the stress on to the latter element, the *v* becomes our *w*, and the sound is (*wii*); E. *we*. Lastly, *a*, *η*, *ω*, originally $\bar{a}_i$, $\bar{\eta}_i$, $\bar{\omega}_i$, are usually pronounced as $\bar{a}$, η , ω (*aa*, *ee*, *oo*, or $\bar{a}$, $\bar{e}$, $\bar{o}$); neglecting the subscribed *i*.

Unfortunately, in Attic Greek, in the fifth century B. C., one of the above diphthongs (at least) had lost its original sound; for *ov* was then no longer a diphthong, but became a simple long vowel, viz. $\bar{u}$, thus occupying the place of the fifth vowel, which (as above noted) had suffered modification. We can give the sounds of *ai*, ϵ_i , *oi*, *av*, ϵv , *ov* with sufficient exactness for practical purposes by sounding them, respectively, as E. *ai* in *aisle*, *ei* in *veil*, *oi* in *boil*, *ou* in *house*, *ew* in *newt*, and *u* in *rule*.

In Latin words borrowed from Greek, *ai* became *ae* or *a*, at first pronounced (*ai*), as in Greek, but confused, at a later time, with long open *e* ($\bar{e}$)¹. Like the O. Latin *ei* itself, the Greek ϵ_i in borrowed words, became long *i* (*i* or *ii*), the same sound as that of *i* in *machine*; and the same result took place in Greek also as early as the third century, B. C. (Brugmann, § 205). This explains the use of *ei* with the sound of $\bar{i}$ in Gothic, which borrowed its alphabet mainly from Greek. The Gk. *oi* in borrowed

¹ The terms 'open' and 'close' have their natural meaning. If we first sound the open *o* in *glory*, and then the close *o* in *note*, it will be felt that the mouth is wider open (i. e. that the jaws are further apart) in the former case than in the latter. So also with the open *e* in *there*, and the close *e* in *vein*. The short close *o* is rare in English, but occurs in *o-bey*, *o-mit*, *pho-netic*.

words became L. *oe*, *æ*¹, originally with the sound of *oi* in *boil*, but in Folk-Latin (the Latin whence Italian and French were immediately derived) it was soon confused with long close *e* (*éé*). The Gk. *av*, *ev* remained in Latin as *au*, *eu*; whilst *ov* was (correctly) represented by *û*.

Finally, as already said, the Gk. *v* was written in Latin as *y*, whether long or short.

5. **Consonants.** The following consonants were originally pronounced as in English: *β* (b), *δ* (d), *κ* (k), *λ* (l), *μ* (m), *ν* (n), *ξ* (x, ks), *π* (p), *ρ* (r, *trilled*), *σ* (s, z), *τ* (t), *ψ* (ps). The *ρ* was slightly aspirated, like the A. S. *hr* in *hrīm* (i. e. rime, hoar-frost) or the Welsh *rh* in *rhos*, a moor (cf. E. *Ross*). The *s* was commonly 'voiceless,' like the *s* in *sin* or *ce* in *rice*, but was 'voiced' to *z* before *β* and *μ*, and in other cases before voiced consonants (*β*, *δ*, *γ*), often causing assimilation. The *γ* (g) was always hard, as in *go*, *gun*, *begin*, *get*. In the combinations *γγ*, *γκ*, *γχ*, the *γ* was pronounced like the E. *ng* in *sing*, or *n* in *ink*. The value of *ζ* seems to have varied; we may sound it as (zd) in 'Αθήναζε = 'Αθήνας-δε. It also occurs as (dz), as (apparently) in *ἐζομαι* (for *ἐδιζομαι*); and its latest value was (z), as in modern Greek.

The letters *θ*, *χ*, *φ* may be considered together, and require attention. The original sounds were like the Sanskrit *th*, *kh*, *ph*, i. e. as *t*, *k*, *p* immediately followed by a slight escape of breath; sometimes denoted by *t'*, *k'*, *p'*. The Romans in the time of Cicero transliterated these symbols by *th*, *ch*, and *ph* respectively, but they usually omitted the 'aspiration,' and pronounced them like the simple *t*, *k*, and *p*. We still use these simple sounds in

¹ e. g. in Gk. *ποινή*, L. *poena*; but the L. derivative from *poena* is *pūnīre*.

pronouncing *Thomas, anarchy*. The Greek Φίλιππος occurs in O. Latin as *Pilipus*; but later, φ appeared as *ph*, which some pronounced like the L. *f*, as φ is now sounded both in Italy and in Greece itself. Hence the Ital. *filosofia* in the sense of 'philosophy.'

Lastly, we have to consider the smooth and rough breathings, and the digamma. The smooth breathing may be neglected in our approximative pronunciation. The rough breathing took the place of *y* consonant; cf. Gk. ὄς, who, with Skt. *yas*, who; for in this word the *y* had passed into E. *h* in *house*, and should be so sounded. It also arose, in some cases, from the change into *h* of initial σ, as in ἑπτὰ (heptá), cognate with L. *septem*, 'seven'; or in words that had once an initial digamma. The digamma, written Ϝ, answers to E. *w*, L. *u* (consonant); it was early lost, and was replaced, initially, by the rough, or sometimes the smooth breathing. Thus ἑσπερος (E. *Hesperus*), for φέσπερος, is allied to L. *vesper*; whilst ἔτος, a year, allied to L. *vetus*, 'old,' was originally φέτος; cf. E. *wether*, a sheep, originally a 'yearling.'

The modern Greek pronunciation is very different from that of ancient Greek, and need not be here considered. A sufficiently full account of it is given in *Principles of English Etymology*, series ii, p. 360.

6. Accentuation. It is chiefly necessary to remark here that the modern English pronunciation of Greek is most in error in its total disregard of the Greek accents as marked in Greek texts. The Greek accents were marked for the purpose of pointing out which syllable was accented, and it is usual to exact strict attention to such marking when we write Greek. The acute accent, in particular, indicated a rise in the pitch of the vowel,

which in modern Greek has been changed into a stress-accent, as in English, but still often accompanied by an elevation in tone. Many changes have taken place, but modern Greek still accents *ἀνθρώπος* on the first syllable. The Englishman, apparently in the belief that he knows better, accents it on the second.

It deserves to be noted that cases occur, not unfrequently, in which the consideration of the position of the Greek accent affects the form of cognate English words. This is best considered in connexion with Verner's Law, for which see *Primer of Etymology*, p. 85.

7. Pronunciation of Latin ; the Vowels. A knowledge of the correct pronunciation of Latin is the best foundation of all phonetic knowledge. It affords a key, not only to all the Romance languages which have descended from it, but to all other languages which have at any time adopted the Latin alphabet ; amongst which may be mentioned English (of all dates), Irish, Gaelic, Welsh, Breton, Manx, Icelandic, Norwegian, Danish, Swedish, Dutch, High and Low German, and others. It is also extremely simple and easy to understand, so that few things are more unfortunate for education than the continued neglect of it. It seems hardly too much to say, that a careful consideration of the sounds originally denoted by the Latin symbols, and a general adoption of even an approximately correct pronunciation of them would do more to lift the whole study of languages, whether ancient or modern, to a higher level among us than any other possible improvement in modern methods of education.

The Latin vowels are, fortunately, the same as those of primitive Indo-Germanic.

The five short vowels are the following:—

SYMBOLS.	EXPRESSING THE SOUND OF
a . . .	ă, as in Ital. <i>amĕre</i> ; being the short vowel corresponding to the ā in E. <i>psalm</i> (saam).
e . . .	ĕ, as Ital. open <i>e</i> (è) ; or (nearly enough) like E. <i>e</i> in <i>met</i> , <i>bed</i> .
i . . .	ĭ, as F. <i>i</i> in <i>fini</i> ; or (nearly enough) like E. <i>i</i> in <i>pity</i> .
o . . .	ŏ, as in E. <i>not</i> , <i>for</i> ; short open <i>o</i> .
u . . .	ŭ, as E. <i>oo</i> in <i>wood</i> , <i>foot</i> ; or <i>u</i> in <i>ruination</i> .

It has been shown (in § 3) that *y* is not properly a Latin symbol, but was introduced from Greek to express the sound of the Greek *v*, which had the modified sound of the G. *ü*, as in *schützen* (if short) or as in *grün* (if long). The six diphthongs *ae*, *au*, *eu*, *oe*, *ei*, *ui* are produced by pronouncing the separate short vowels which compose them in quick succession. Approximate values occur respectively, in the E. *ai* in *aisle*, E. *ou* in *house*, E. *ew* in *newt*, E. *oi* in *boil*, E. *ei* in *veil*, and E. *ui* in *ruination* (if the stress is on the *u*). The vowels *ā*, *ī*, *ū* are the same in quality as *ă*, *ĭ*, *ŭ*, but are more protracted ; i. e. they are precisely like the E. *al* in *psalm* (saam), the E. *i* in *machine* (mēshiin), and the E. *u* in *rule* (ruul).

The long *ē* is close, like the Ital. close *e* in *arēna* ; it is the former and more important element of the E. diphthong *ei* in *vein*. It is treated as a close *e* in Folk-Latin, and in words derived from it.

The long *ō* is likewise close, like the G. *o* in *so* ; or as the former and more important element of the diphthong (óu) which is the real value of the E. so-called long *o* in E. *so* (sóū). The latter element can scarcely be detected

in E. *note*, in which the *o* hardly differs from the pure Italian $\bar{o}$. This long $\bar{o}$ is treated as a close $\bar{o}$ in Folk-Latin and in words derived from it. But $\bar{o}$ had the open sound before *r*, as in *plōro*, where the modern E. pronunciation is not far wrong; so also (probably) in words like *explōdo*, in which the $\bar{o}$ is derived from *au*, as in *plaudo*. That is to say, the $\bar{o}$ in *explōdo* was like E. *au* in *laud*, whilst the *au* in *plaudo* was the E. *ou* in *loud*.

The Old Latin had also *ai*, like E. *ai* in *Isaiah* when broadly pronounced. This *ai* was replaced by *ae*, pronounced nearly as E. *ai* in *aisle*; as in *aidēs*, later *aedēs*, a temple. At a later period, it was written *æ*, as in *ædēs*; but the use of the symbol *æ* is not really classical.

O. Lat. *ei* became $\bar{i}$, as in *deico*, L. *dīco*. O. Lat. *oi* became *oe*, α , as in *foidus*, L. *foedus*; or, more often, passed into $\bar{u}$, as in O. Lat. *oinos*, *oenos*, L. *ūnus*; O. Lat. *comoinis*; L. *commūnis*. O. Lat. *ou* became $\bar{u}$, as in *douco*, L. *dūco*¹.

The L. *i* was also used as a consonant, with the power of E. *y* or G. *j*. It is sometimes printed *j*, as in *ējus*, which has induced many people to sound it like the Old Norman *i* (consonant) and mod. E. *j*; but the symbol *j* is extremely modern, as it did not come into general use till after the accession of James I (1603). The *j* intended, however, is really the German *j*; so that *ējus* (= $\bar{e}j\bar{u}s$) was pronounced (ee'yus), or (nearly) as E. *ei* in *rein* followed by E. *use*; with the stress on the former.

The Latin *u* was also used as a consonant, with the sound of E. *w*. The change to the sound of *v* took place

¹ *Douco* itself seems to have been a modification of an earlier **deuco*; the *ou* being unoriginal. Both *eu* and *ou* became $\bar{u}$ at an early period. Hence *eu* is rare; *neuter* is from *ne-wer*.

some time after the Christian era, which accounts for the printing of *uolo*, *uult* as *volo*, *vult*¹. The L. *u*, as in *uīnum*, *uallum*, *uīcus*, is preserved to this day in E. *wine*, *wall*, *wick* (as in *Wick-ham*), as these words were borrowed from Latin before the change to *v* took place.

8. The Latin consonants. Pronounce *c* always as E. *k*, and *g* always as E. *g* in *get*, *begin*; even before *e* and *i*. Pronounce *t* as E. *t* in *ten*; even before *i*, as in *ratio* (*ratioo*). Pronounce *b*, *d*, *f*, *l*, *m*, *n*, *p*, *qu*, *x* as in English; and remember always to trill the *r*, even when final. Pronounce initial *h* as E. *h* in *hot* (nearly); but note that it was very weak, and was easily dropped. It need not be kept up where it is not written. The O. Lat. *hanser*, for example, is usually *anser*, though the *h* corresponds, etymologically, to the χ in Gk. $\chi\acute{\eta}\nu$.

The symbol *s* requires attention, as it is almost always voiceless, like the E. *s* in *sin*; it must not be sounded as *z* in the word *fraus*, which rimes with E. *house*. The *b* in *urbs* (*urps*) becomes a *p* in consequence of this sound of *s*; similarly, the spelling *scribtus* sometimes occurs, though it denotes *scriptus*. This sound of *s* explains the spelling *caussa* for *causa*. The *z* in *zōna*, perhaps once a (*dz*), may be pronounced as in English. The voiced *s*, pronounced as E. *z*, had once occurred between two vowels, so that the gen. of *rōs* became **rōzis*; but this *z* had already passed into *r* before literature begins, so that this genitive appears as *rōris*; a phenomenon which is rather common, and is found in Anglo-Saxon as well as in Latin.

We have already noticed that the consonantal *i* and *u*

¹ The Romans themselves wrote *volo*, but their *v* was pronounced as *w*. On the other hand, in the medieval form *uolo*, the *u* was pronounced as *v*.

were pronounced, respectively, like the E. *y* in *you* and the E. *w* in *wine*. *Ph*, *th*, *ch* only occur in words borrowed from Greek; or (erroneously) in words which, like *pulcher*, were imagined to be of Greek origin. *Ph* was at first sounded as *p*, but afterwards became *f*. *Th* was reduced to *t*, so that the O. Fr. and Middle E. forms of the L. *theātrum* (also *teātrum*) often appear as *teatre*, though in the modern form *theatre* the *th* has been 'restored.' *Ch* was a mere *k*, and often remains as such in English; as in *anarchy*, *patriarch*, *archangel*.

CHAPTER II

TRANSLITERATION AND COMBINATIONS

9. **Transliteration of Greek Vowels.** Owing to the difference in form between Greek and Latin letters, words borrowed by Latin from Greek had to be rewritten and often, in a slight degree, to be respelt. In the examples given below, I confine myself to such as have been adopted in modern English.

Gk. *v* = L. *y*. It has been explained that the Gk. *v* was denoted in Latin by *y*. As modern English spelling is of Anglo-French (Norman) origin, and Anglo-French itself is mainly of Latin origin, most of the words containing a Greek *v* are spelt with *y* to this day.

Examples, in words derived directly from Greek, are seen in *anonymous*, *asphyxia*, *asymptote*, *barytone*, *cataclysm*, *chrysalis*, *cryptogamia*, and many words relating to science.

Examples, in words borrowed from Greek through the medium of Latin, are seen in *abyss*, *asylum*, *chalybeate* (from L. *chalybs*, steel), *cynic*, *cynosure*, and many others.

Examples, in words borrowed from Greek at second-hand, not directly from Latin, but through the medium of French, are seen in *crystal*, *cycle*, *cylinder*, *cymbal*, *cypress*, and many more.

The chief exceptions are *cube*, L. *cubus*, from Gk. κύβος; *drupe*, F. *drupe*, L. *drūpa*, from Gk. δρύππα; *tunny*, L. *thunnus*, from Gk. θύννος. Also *aneurism*, for *aneurysm*, Gk. ἀνεύρυσμα; usually thus misspelt owing to association with numerous words in *-ism*.

Gk. *ai* = L. *ae*, F. *e*. Examples occur in *æsthetic*, *aphæresis*, *archæology*, *pædobaptist*, *palæography*, and the like. Strictly speaking, these are pedantic or Latinised forms, and are inconsistent with the fact that our spelling is really of Anglo-French origin, in which the normal spelling had *e*; for *æ* is not an Anglo-French symbol. Examples of normal spellings, with F. *e* for L. *æ*, occur in commoner words, such as *demon*, *ether*, *enigma*, *meander*, *phenomenon*, &c. Hence *medieval* is better than *mediæval* (cf. *primeval*), and *peony* than *pæony*. The mischief is, of course, due to the period of the Renaissance, when it became the fashion to display what was believed to be 'learning.' To this rather conceited notion are due many of our absurdities, such as the alteration of *det* to *debt* (against the pronunciation), and of *sent* to *scent* (against both pronunciation and the derivation from L. *sentire*), because forsooth there is an *sc* in *science*; and many more similar contradictions, such as *scythe* for *sithe*.

In *heresy*, *heretic*, the English accent has shortened the *e* (*ai*). Both are derived, ultimately, from the Gk. *αἵρεῖν*, to take, to choose.

Gk. *ei* passed into the sound of L. *i*, and is usually so written. Examples: *chiromancy*, *empiric*, *irony*, *pirate*, *Siren* (not *Syren*). But it is *e* in *panacea*, where an *a* follows, and in the proper names *Medea*, *Althea*.

Gk. *oi* = L. *oe*, F. *e*; E. *æ*, *e* (where *e* is normal). Exx. (1) *cænobite* (*cenobite*), *diarrhœa*, *homœopathy*, *onomatopœia*, 'learned' forms due to meddlesomeness; Exx. (2) *cemetery*, *economy*, *epicene*, *esophagus*, *phenix*, *solecism*. The spelling *diocese* is due to the alteration of Lat. *diœcesis* to *diocesis* in medieval times.

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Gk. $\omicron\upsilon$ = L. $\bar{u}$, which had the same sound; the corresponding E. *u* is usually pronounced like *Yu* in *Yule* (though often less emphatic), but sometimes short. Exx. *bucolic, colure, ecumenical, enthusiasm, epicure, muse, museum, utopian*. It is altogether short in *butter, eunuch, liturgy, metallurgy, theurgy, chirurgion, surgeon*. But *o* occurs for *u* in *mosaic*, F. *mosaïque*, Ital. *mosaico* (from $\mu\omicron\upsilon\sigma\alpha$); cf. Ital. *mosca*, a fly, from L. *musca*.

Gk. η = L. $\bar{e}$; often shortened. Exx. (1) *catastrophe, catechise, category, &c.*; (2) wholly short in *catalepsy, clematis, comet, epidemic, panegyric, parallel*. Spelt *ee* in *spleen*. Also *ea* in words borrowed through French; as in *treacle, zeal*; shortened by stress in *zealous, jealous, treasure*. As English pronunciation is regulated solely by stress, it pays no regard to 'quantity.'

Gk. long ι = L. $\bar{i}$; it occurs in *siphon*.

Gk. ω = L. $\bar{o}$; but the E. *o* is usually short. Exx. *anemone, axiom, carotid, chromatic, euphony, phonetic, theorem, theory*.

Gk. φ = L. $\bar{o}$. E. *ode, epode, palinode*; changed to *e* in *comedy, tragedy*, in which the *e* represents L. $\bar{a}$, from the Gk. φ . The *oo* in *oolite* answers to Gk. $\acute{\omega}o$; and the *oo* in *zoology* to ωo or φo ; here the E. *oo* is *o-o*, not *oo* as in *pool*.

Gk. *o* (unaccented) became L. $\bar{u}$; as in *exodus, emporium*. Gk. $\rho\acute{\omicron}\mu\iota\sigma\mu\alpha$ became L. *numisma*, by substitution of an accent of stress for one of pitch, and transference of the stress to another syllable; hence our *numismatic*.

10. Transliteration of Greek Consonants. Gk. κ = L. *c*. Exx. *catechise, decagon, &c.* Hence F. *c*, pronounced as *s* before *e* and *i*; as in *centre, citron*.

Gk. ρ (initial) = L. *rh*. Exx. *rhapsody, rhetoric, rheum,*

rhinoceros, rhododendron, rhombus, rhubarb, rhythm. But *rhumb* is also *rumb*.

Gk. θ = L. *th*, *t*; O. F. *t*. Confused in E. with native E. voiceless *th*; modern Gk. has adopted the same sound. Exx. *theorem, thesis, bathos*, &c. But it is *t* in *tansy, treacle, treasure, tunny*; and is pronounced as *t* in *thyme*. The (supposed) *th* has been 'restored' in *theatre, theme, throne*; the M. E. forms were *teatre, teme, trone*; cf. F. *théâtre, thème, trône*, all pronounced with *t*.

Gk. ϕ = L. *ph*; O. F. *f*; E. *ph, f*. Normal spellings appear in *fancy, frantic, frenzy, scarify*; the pseudo-learned *ph* occurs in *phantom, phantasy*, and many more. A remarkable example is *hyphen*, where the *ph* arose from the fact that $\iota\pi'$ (for $\iota\pi\acute{o}$), 'under,' was succeeded by the aspirate with which $\epsilon\nu$ commences. In such a case, the Greek wrote $\iota\phi$ -, by which he obviously meant (hyp-h-), using ϕ to denote 'p followed by an aspirate.' The Gk. ϕ in $\phi\acute{\alpha}\lambda\eta$ has given us the double form, *vial* and *phial*.

Gk. χ = L. *ch*, pronounced as *k* even before *e* and *i*. Exx. *chaos, technical, oligarch; lichen, orchestra; chimera, architect*.

Of course many further modifications took place when words were borrowed from Latin indirectly, through the medium of French; thus the Gk. χ in $\chi\acute{\alpha}\rho\tau\eta$ became the O. F. *ch*, as preserved in mod. E. *chart*; whilst the *ch* in *chair* represents the κ in $\kappa\alpha\theta\acute{\epsilon}\delta\rho\alpha$, from which θ and δ have disappeared. Such changes are too numerous to be noticed here; and must be studied in connexion with A. F., O. F., and modern F. phonetics.

11. Combination of Greek Consonants. We may enumerate the letters of the Greek alphabet thus. Symbols representing vowels: $\alpha \epsilon \eta \iota \omicron \omega \upsilon$; liquids: $\lambda \mu \nu \rho$;

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voiced consonants: $\beta \gamma \delta \zeta$; voiceless consonants: $\theta \kappa \xi \pi$
 $\sigma \tau \phi \chi \psi$.

As in all other languages, difficult consonants pass into easier ones; voiceless consonants may become voiced before a voiced sound, and conversely. Some examples, nearly all found in English, are here given.

$\gamma\tau > \kappa\tau$; where the symbol $>$ means 'passes into' or 'becomes.' Ex. λέγ-ειν, to speak; whence *dia-lect*, *ec-lec-tic*. E. *stalag-mite*, allied to *stalac-tite*.

$\chi\tau > \kappa\tau$. Ex. ἔχ-ειν, to hold; whence *hec-tic*, *Hec-tor*.

$\phi\tau > \pi\tau$. βαφ-ή, a dipping, βάπ-τω, I dip; E. *baptize*. γλύφ-ω; E. *glyph-tic*.

$\delta\tau > \sigma\tau$. ἰδ-εῖν, to see, ἴσ-τωρ, knowing; E. *history*. μαδ-άειν, to be moist, μασ-τός, breast; E. *mastodon*.

$\phi\mu > \mu\mu$. γράφ-ειν, to write, γράμ-μα, a letter; cf. E. *graphic* with *grammar*, *anagram*, *diagram*, *epigram*, &c.

$\kappa\mu > \gamma\mu$. δοκ-έω, I am of opinion, δόγ-μα, an opinion; E. *dogma*, *dogmatic*.

$\nu\pi > \mu\pi$; $\nu\phi > \mu\phi$. Hence ἐν, in, becomes ἐμ- in *empiric*, *emporium*, *empyrean*; also in *emphatic*, *emphasis*.

Even such a combination as $\pi\tau$ may become voiced; so that from ἐπτά, seven, we have ἑβδομάς (stem ἑβδομάδ-), a week; hence *hebdomal*. So also ὄγδοος from ὀκτώ.

κ , τ , π become χ , θ , ϕ , when an aspirate follows; but this appears to have been merely a graphic change in such cases as $\chi\theta$, $\phi\theta$, which were doubtless pronounced merely as $\kappa\theta$, $\pi\theta$. From ὑπό, 'under,' we have *hyphen*; from ἀπό, 'off,' we have *aphaeresis*, *aphelion* (which is rather bettered than made worse if pronounced as *ap-helion*), *aphorism*; from κατ-ά, 'down,' 'according to,' we have *cathedral*, *catholic*; from ἐπί, 'for,' we have *eph-emerat*. From κρύπ-τειν, 'to hide,' we seem to have *apocrypha*; but

we may suspect that *κρυφ*- (root unknown) is the older stem. Lastly, we may compare the *pt* in *optics* with the *phth* in *ophthalmia*; the Gk. *ὀφθαλμός* was pronounced (opt(h)almós), where t(h) means *t* followed by an escape of breath or 'aspiration.'

12. Combinations with *y*. There are numerous traces in Greek of the sound of a consonantal *ι*, with the sound of E. *y* in *you*. I shall here take the liberty to denote it by the symbol *ι̇* instead of the usual (German) *j*. It occurred very frequently at the beginning of a non-initial syllable, and considerably modified the forms of many words by modifying the sound that preceded it. I only give examples of some of the commoner formulae, nearly all with English examples. The asterisk (*) marks a *theoretical* form.

λι̇ > *λλ*. L. *alius* = Gk. **ἄλιος* > *ἄλλος*; hence *allopathy*, *par-all-el*. Similarly *βάλλω* stands for **βάλ-ι̇ω*, so that the root contained but *one* *λ*; cf. *βέλ-ος*, a dart, *βολ-ή*, a throw; E. *belemnite*, *parabola*, *hyperbola*, *symbol*.

The suffix *-ι̇ω* for verbs is common in Indo-Germanic languages; as in L. *sal-io*, *cup-io*, A. S. infin. *wen-ian*, 'to wean,' and numerous verbs in Sanskrit that affix *-ya* to the root. Hence we have *σκέλ-λω*, I dry, for **σκέλ-ι̇ω*; E. *skeleton*, with one *l*. Gk. *στέλ-λω*, I place, for *στέλ-ι̇ω*, with base *στέλ*, second grade *στολ*; whence E. *stole*, *diastole*, *systole*, *apostle*, *epistle*. Gk. *ψάλ-λω*, for **ψάλ-ι̇ω*; E. *psal-m*, *psal-tery*.

θι̇ > *σσ*. Skt. *madh-ya-s* = L. *med-ius*, for **medh-ius* = Gk. **μέθ-ιος*, 'middle,' > Aeolic *μέσσος*, Attic *μέσος*; whence E. *mes-entery*.

κι̇ > *σσ*. Gk. **πράκ-ι̇ω* > *πράσ-σω*, I do; E. *practical*, *practice*; and, as *κμ* > *γμ*, E. *pragmatical*. **τάκ-ι̇ω* >

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τάσ-σω, I set in order; hence E. *tac-tics*, allied to *archi-lect*, and *taxidermy* (from τάξις = *τάκ-σις). *πλήκ-ζω > πλήσσω, I strike; E. *apoplexy*, *apoplectic*. (Unless, in these words, σσ represents χί.)

δι̇ > ζ. *εδ̇-ζομαι > ζέ-ομαι, I sit; cf. εδ̇-ος, a seat, and L. *sed-ēre*; E. *cathedral*, *polyhedron*. *σχίδ-ζω > σχίζω, I cleave; allied to L. *sci(n)do*, pt. t. *scid-i*; hence σχίσ-μα for *σχίδ-μα, a rent, E. *schism*; cf. E. *schist*.

ν̇ > υ. Gk. *φάν-ζω > φαίνω, I show; the true base φαν- appearing in fut. φαν-οῦμαι, φαν-ήσομαι, 1 aor. pass. ἐφάν-θην, &c., and in derivatives; E. *phantasm*, *phantom*, *diaphanous*, *epiphany*; *fancy*, *fantasy*, *fantastic*; the *ai* (> *e*) is preserved in *phenomenon*; and even the singular verb *to pant* is from the same source. Gk. μαν-ία, E. *mania*, is allied to μαίνομαι, i. e. *μάν-ζομαι, I become mad; cf. μάν-τις, a seer. Gk. τέν-ζω > τείνω, I stretch; the second grade of τεν- is τον-, whence E. *tone*, *tonic*, *diatonic*; allied to L. *ten-ēre*, to hold, whence *tenacious*, *tenor*, *tenement*, &c. Note that the change from ν̇ to υ, like all the rest, was produced by degrees and insensibly.

ρ̇ > ιρ. Hence περ-άω, I pass through, is allied to *πέρ-ζα, i. e. πείρα, an attempt, trial; whence *πειρατής*, one who attempts or attacks ships; E. *pirate*. So also σειρά, a rope, from *σερ-ζά, is allied to L. *ser-iēs*, E. *series*.

A knowledge of a few elementary sound-laws such as those illustrated above is a great aid to the recognition of the true sources of a very large number of English words.

13. **Accentuation in Latin.** I now proceed to give a few illustrations of simple sound-laws as found in Latin. One of the most important considerations is that of Latin accentuation, as it plays a large part in the

alteration of vowel-sounds. We may first notice that, in English, prepositions when used adverbially, or in connexion with verbs, are frequently very emphatic, because they often indicate direction or result. If, for example, I were to say, 'I met him coming *out* just as I was going *in*,' it is advisable to pronounce the words *out* and *in* clearly and with some emphasis, as I should then be better understood. Similarly, when the Latin prepositions were first used in connexion with verbs, they received the accent; and the result was that the unaccented form of a Latin verb in composition usually differed from its original form, showing a weaker vowel. Thus *cap*-, as in *cáp-io*, I take, becomes *-cip-* in all direct derivatives, viz. in *ác-cipio*, *cón-cipio*, *dé-cipio*, *éx-cipio*, *ín-cipio*, *ínter-cipio*, *pér-cipio*, *práe-cipio*, *ré-cipio*, *sús-cipio*. The effect of the accent is better seen in such forms as *ác-cipit*, *cón-cipit*, *dé-cipiúntur*, *ín-cipiéndi*. In the indirect derivative *oc-cup-āre*, which is of the *first* conjugation, the root-syllable has become *-cup-*. Of course the same results appear in E. derivatives, such as *anticipate*, *incipient*, *recipient*, *occupy*. Similarly, from *ago*, I drive, we have *éx-igo*; whence E. *exigency*. From *lego*, I gather, we have *cól-ligo*, *dé-ligo*, *dí-ligo*, *é-ligo*, *nég-ligo*, *intél-ligo*, *sē-ligo*; cf. E. *diligent*, *negligent*, *intelligent*, *intelligible*. So also we have *cē-cinī*, I sang, as the pt. t. of *canere*; *cē-cidī*, pt. t. of *cadere*; *pē-pigī*, pt. t. of *pang-ere* (base *pag-*, as in *pac-tus* for **pag-tus*); *tē-tigī*, pt. t. of *tang-ere* (base *tag-*, as in *tac-tus* for **tag-tus*); cf. E. *contiguous*. We even find *sin-ciput*, *oc-ciput*, as derivatives of *caput*, the head.

If, however, the vowel of such a root as *cap-* (in *cap-io*) is followed by *two* consonants, as in the pp. *captus*, it is said to be 'in position'; cf. the phrase 'long by position'

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when used of a Latin vowel. The vowel *a* in position is not weakened to *i*, but only to *e*; so that the pp. of *accipio* is *acceptus*; and so in other cases. The following is a complete list of the Latin vowel-changes in verbs:—

Original Vowels. *ă* *a* (in position) *ě* *ae* *au* *oe*

Weakened Vowels. *ÿ(ü)* *e* (in position) *ÿ* *ī* *ō(ū)* *ū*.

The following examples can be traced in English. The list is by no means exhaustive:—

ă > *ī*. *Facio*, *efficio*; *laccio*, *eliceo*; *taceo*, *reticeo*; *ago*, *exigo*; *frango*, *infringo*; *pango*, *impingo*; *tango*, *contingo*. Hence E. *efficient*, *elicit*, *reticent*, *exigency*, *infringe*, *impinge*, *contingent*. Also: *statuo*, *constituo*; *cado*, *accido*; *capio*, *incipio*; *habeo*, *inhibeo*; *salio*, *resilio*; cf. E. *constituent*, *accident*, *incipient*, *inhibit*, *exhibit*, *prohibit*, *resilience*. The same principle is followed out in the case of *concilium*, sb., from *calo*, I summon; *insipidus*, tasteless, from *sapidus*, savoury; cf. E. *council*, *conciliate*, *insipid*.

ă > *ū*. *Capio*, *occupo*, *nuncupo* (i. e. *nomen capio*), where *occupo*, *nuncupo* belong to the first conjugation. *Quatio*, *discutio* (for **dis-quetio*); *calco*, *inculco*; *salio*, *insulto*. Cf. E. *occupant*, *nuncupative*, *inculcate*, *insult*.

ě > *ī*. **Specio* (= Gk. *σκέπ-τομαι*, for **σπέκ-τομαι*, cf. *spec-ies*, *spec-imen*, and the pt. t. *in-specti*), *perspicio*, *suspicio*; cf. E. *perspicuous*, *suspicious*. *Egeo*, *indigeo*; *lego*, *diligio*, *intelligo*, *negligo*; *rego*, *dirigo*; cf. E. *indigent*, *diligent*, *intelligent*, *negligent*, *dirigible*; also *dirge*, short for *dirige*, 2 p. s. imperative. *Peto*, *propitius* (i. e. 'flying forward,' and affording to the augurs a good omen); *sedeo*, *assideo*, *dissideo*, *insideo*, *praesideo*, *resideo*, *subsidium*; E. *propitious*, *assiduous*, *dissident*, *insidious*, *president*, *resident*, *subsidy*. *Teneo*, *abstineo*, *contineo*, *pertineo*; *premo*, *reprimis*; E. *abstinent*, *continent*, *pertinent*, *reprimis*.

mand. But *e* remains unchanged when *r* follows ; cf. *E. conference, circumference, deference, difference, inference, offer, reference, transference* ; all from *L. fero*.

a > e (in position). *Fateor, confiteor, confessus* ; *aptus, ineptus* ; *factus, effectus* ; *iactus, iniectus, obiectus* ; *captus, inceptus* ; *raptus, surreptus* ; *E. confess, inept, effective, inject, object, inception, surreptitious*. So also *iacto, eiecto* ; *tracto, detrecto* ; *capio, forceps, biceps* ; cf. *E. eject, conjecture, inject, object, vb., project, vb., reject, detrectation, forceps, biceps*. For further examples cf. *E. exercise, asperse, disperse, excerpt, perpetrate, consecrate, accent, incest* ; and the Latin perfect tenses *pe-percī, fe-fellī*.

ae > i. *Laedo, collido, elido, quaero, acquiro* ; *E. collide, elide, acquire*. Also the Latin perf. t. *cē-cidī*, from *caedo*.

au > ō, ū. *Plaudo, plodo, explodo* ; *E. explode*. *Claudo, excludo, includo, concludo* ; *E. exclude, include, conclude, seclude, recluse*. *Faux, suffōco, E. suffocate* ; *causa, accūso, excūso, E. accuse, excuse*.

oe > ū. *Poena, pūnio, impūnitās, E. punish, impunity*. *Moenia, mūnio, E. muniment, ammunition*.

CHAPTER III

COGNATE WORDS IN ENGLISH

14. **Cognate Words in English.** In all the cases mentioned in the last Chapter, I have given examples of simple derivation, where the English words have been, directly or indirectly, *borrowed* from Greek or Latin, and could never have existed independently of those languages. But there is another class of words altogether, which form indeed the very backbone of our language, and may be called words of native origin. Such words are usually extremely common and familiar, and I may cite as instances, taken quite at random, such pairs as *father* and *mother*, *land* and *sea*, *heaven* and *earth*, *hot* and *cold*, *bold* and *weak*. Words of this character existed at a time long before a written record of them was possible, and their origin is lost in the distant obscurity of prehistoric ages. They are just as old as anything in Latin or Greek or Sanskrit; we must never commit the obvious error of supposing that a language like Greek is of greater antiquity than English merely because it had the good luck to be sooner recorded. It may very well happen, and indeed happens rather often, that the form of an English word is older and better preserved than that of a Greek one. Latin, Greek, and English (i. e. the unborrowed portion of it) are sister languages, and it is often a matter of almost absorbing interest to see how wonderfully any one of these three languages supplies information about the other two which we might otherwise never have discovered.

Cognate forms are those which exist side by side, in two languages at least of the Indogermanic family, without any borrowing in either direction; whilst at the same time they have like significations, and proceed ultimately from the same Indogermanic type, which can in many cases be restored. Instances occur in such trios as *father*, *pater*, *πατήρ*; *mother*, *māter*, *μήτηρ*; *acre*, *ager*, *ἄγρός*; *bear*, vb., *fero*, *φέρω*; *kin*, *genus*, *γένος*. Or we may note such pairs as E. *beaver*, L. *fiber*; E. *cold*, L. *gelidus*; not found in Greek. Or again, such pairs as E. *brow*, Gk. *ὄφρὺς*; E. *carve*, Gk. *γράφειν*; not found in Latin. Or lastly, such pairs as L. *dō*, Gk. *δί-δω-μι*; L. *dexter*, Gk. *δεξιός*; not found in English. Each of them preserves words unknown to the other two; such as E. *hot*, L. *amāre*, Gk. *δέω* (I bind).

It is usually by no means difficult to tell whether an English word is cognate with a Latin or Greek one, or merely borrowed; for in the latter case the words to be compared usually bear a much closer resemblance to each other than in the former. When we compare *paternal* with Latin *pater* and Gk. *πατήρ*, the resemblance is so close that borrowing from one or other of these is almost certain: and when we find that Late Latin actually possessed the adjectival form *paternālis*, there is no need to seek any further. But when we compare *father* with the same two words, it is obvious that the E. *f* differs from the L. *p* and the Gk. *π*, so that direct borrowing is impossible; hence, as the sense is the same and there is some general resemblance, we may suspect, at the outset, that the word is cognate with *pater* and *πατήρ*. When we find further that the E. spelling, with *f* and *th*, can be fully accounted for, the suspicion becomes a certainty.

There is usually in fact, in such cognate words, a difference between the E. initial letter and the L. or Gk. one, whenever such initial is a consonant but not a liquid. The exceptions are not many, and the cause of the exception (usually the occurrence of *two* initial consonants together) is commonly easy to perceive. Besides this, the variations are quite regular; the E. *f* in *father* corresponds to the *p* in L. *pater* for the simple reason that every E. initial *f* corresponds to a L. initial *p*, if real cognation exists. This important fact is known as 'Grimm's Law,' and is fully explained in the Primer of English Etymology, ch. vii.

15. Examples of Grimm's Law; the Dental Series. Instead of here repeating Grimm's Law formally, I will give some practical examples of it, which will sufficiently illustrate it, confining myself at the same time to three languages only, viz. English, Latin, and Greek; and always starting from the last of these. The three Gk. dental letters are θ , δ , τ ; and it is clearest to take them in this particular order. It may be noted that the original Indogermanic value of θ was DH; Skt. *dh* (*d'*).

Indogermanic DH. Initially; Gk. θ = L. *f* = E. *d*.
Medially: L. *dh* becomes *b* or *d*; the others remain unchanged, i.e. remain as θ and *d*.

Exx. *θαρσεῖν*, to be bold; E. *dare*. Gk. *θυγάτηρ*; E. *daughter*. Gk. *τί-θη-μι* (for **θί-θη-μι*), I put, place; E. *do* (often with the sense of 'put'; as in *don*, for *do on*, to put on). Gk. *θέμις*, law; E. *doom*. Gk. *θύρα*, a door; L. *fores*, pl., doors; E. *door*. Gk. *θρῆνος*, a dirge (whence E. *threnody*, a borrowed word); E. *drone*, to hum, to rumble; allied to Gk. *ἀν-θρήνη*, a wild bee, E. *drone*.

The above comparisons must already have suggested

difficulties. It will be seen at once that the resemblance, in cognate words, often extends no further than to the first syllable of the word. If *θαρσύν* is related to *dare*, the resemblance seems to be limited to the syllable *θαρ*, and we may well ask, what has become of the Gk. *σ*? The answer is, that the A. S. form of *dare* is *dearr* (with *rr*), and that the latter *r* arose from an earlier *s*; in fact, the Gothic form of 'dare' is *ga-dars*. It will now be understood that the true base of the E. *dare* is *dars-*; and, as a matter of fact, the pt. t. is *durs-t*, where the *s* belongs to the root, and the *-t* is a suffix, as in *kept* from *keep*. A great many of these cognate relationships require a good deal of explanation before they can be wholly understood. In the case, for example, of *θυγάτηρ* = *daughter*, the sense is satisfactory, the *θ* (= *d*) is correct, the suffixes *-τηρ* and *-ter* may be believed to be related, but it still remains to prove, or to test in some way, the relationship between *-vya-* and *-augh-*. This admits of a solution; and when the solution is understood, the equivalence of the words can no longer be doubted. But full proof has often to be for a while forgone; many cases have to be left till new phonetic laws have been learnt. We cannot, in philology, explain everything all at once.

In the case of *τί-θη-μι* (future *θήσω*), the root is obviously *θη-*; for *τί-* is a reduplicating prefix, and *-μι* is a suffix. The Gk. *η* regularly answers to an A. S. *ō*, so that *θη-* = *dō*, which in A. S. means 'I do.' Gk. *θέμις*, law, is allied to *τίθημι*; and E. *doom*, A. S. *dō-m*, is a derivative of A. S. *dō-n*, to do.

16. Indogermanic *DH*; medially or finally. Gk. *θ* = L. *d*, or *b* (before and after *r*) = E. *d*.

Gk. **μεθ-ιος* (Skt. *madhya-s*) > Aeolic μέστος, Attic

μέσος; L. *medius*; E. *mid*. Gk. ὄψαρ; L. *über*; A. S. *ūder*; E. *udder*. Gk. ἐ-πυθ-ρός; L. *rub-er* (stem *rub-ro*); E. *red*. L. *uerb-um*; E. *word*.

In these words, the E. forms render great assistance, as they show the true value of the Latin *d* or *b*. The E. *mid*, for example, tells us that the L. *d* is from an Indogermanic DH, and suggests **medhius* (as it were) as an older Latin form, which would precisely answer to a Gk. **μεθίος*; and the Sanskrit form confirms this.

17. Indogermanic D. Gk. δ = L. *d* = E. *t*. Examples are given in the Primer of English Etymology, p. 81. I repeat some of them here. Gk. ὀ-δούς (stem ὀ-δοντ-); L. acc. *dent-em*; E. *tooth*. Gk. δαμάειν; L. *dom-are*; E. *to tame*. Gk. δάκρυ, δάκρῦμα; cognate with L. *lacrima* (with *l* for *d*); E. *tear*. Gk. δέκα; L. *decem*; E. *ten*. Gk. δύο; L. *duo*; E. *two*. Gk. δέμ-ειν, to build; L. *dom-us*, a house; E. *tim-ber*, building material. Gk. δρῦς; E. *tree*. O. Lat. **dīngua*, L. *lingua* (with *l* for *d*); E. *tongue*. Gk. καρδ-ία; L. *cord-is*, gen. of *cor*; E. *heart*. Gk. ἕζομαι (for *σέδ-ιομαι), I sit; L. *sed-eo*; E. *sit*. Gk. ἡδ-ύς (for *σφᾶδ-ύς); L. *suā-uis* (for **suād-uis*); E. *sweet*. Gk. ἔδ-ειν; L. *ed-ere*; E. *eat*.

Some of these require further explanation. I here explain the first at length. In the Gk. ὀ-δούς, a tooth, the initial *ὀ* seems to have been prefixed, as in other Greek words¹. The true declensional stem of the word is, accordingly, -δοντ-, the corresponding form to which in primitive Teutonic is *tanth-*, because the Greek *o* corresponds to Teutonic *a*, as in other cases. But Anglo-Saxon commonly substitutes *on* for *an*, as in the case of the prep. *on*, which remains as *an* in German. Thus the

¹ Unless the Gk. ὀδόντ- represents ἔδοντ-, from ἔδ-ειν, to eat.

original A. S. stem was *tonth-*. But further, it is a law of A. S. phonetics that in the combinations *-onth* and *-ons*, the *o* is invariably lengthened, whilst the *n* is absorbed and disappears; the result being, regularly, *tōth* = *tōð*, which is the A. S. form actually found. And from this the mod. E. *tooth* likewise results regularly, since A. S. *ō* > E. *oo*. In other words, the mod. E. *tooth* exactly corresponds to the Gk. stem *-δοντ-*, these two forms being identical throughout.

It will hardly escape notice that the E. *sit* not only preserves the initial *s* which the Greek has lost, but suggests the *δ* in the form **σέδ-ζομαι*; whilst, in the word *sweet*, English has preserved the initial sound of *sw*, of which the only trace left in the Greek form is the initial rough breathing due to an older *s*, the *w* having disappeared altogether, as is usual in Greek.

18. Indogermanic T. Gk. *τ* = L. *t* = E. *th* (usually as *th* in *thorn*). Gk. *τέγ-ος*, a roof; L. *teg-ere*, to cover over; E. *thatch* (a roof). Gk. *τανύ-γλωσσος*, long-tongued; *τανύω*, I stretch out; L. *tenuis*; E. *thin*. O. Lat. *tong-ēre*, to think; E. *think*. Gk. *τάλας*, long-enduring; L. *tol-erāre*, to put up with; E. *thole*, to suffer or endure. GK. *φράτηρ*, a member of a clan, a brother; L. *frāter*; E. *brother*. Gk. *ἔτος* (for *féτος*), a year; L. *uit-ulus*, a calf (yearling); E. *weth-er*, a ram (orig. a yearling). Gk. *περ-άννυμι*, I spread out; L. *pat-ulus*, extended, broad; E. *fath-om*, the space reached by the extended arms.

Dutch turns initial *th* into *d*, and the Dutch for 'thatch' is *dak*, whence the verb *dekken*, to cover, to deck. Our word *deck* is merely borrowed from Dutch; the fact that it does not begin with *th* is enough to show that it is not a native word.

E. words ending in *-ther* present peculiar difficulties, as some of them come under Verner's Law. That is why the forms *father* and *mother* receive no mention here; they are comparatively modern, and the *th* is delusive; for they appear in Middle English as *fader* and *moder*. But the M. E. and A. S. forms of *brother* and *wether* are the same as the modern ones. See *Primer of English Etymology*, pp. 84, 85.

19. Labial Series. The three Greek labial sounds are denoted by ϕ , β , π , denoting respectively the Idg. BH, B, and P.

Indogermanic BH; Skt. *bh* (b'). Gk. ϕ = L. *f* (initially), *b* (medially) = E. *b* (initially), *b*, *f*, *v* (medially).

Gk. $\phi\eta\gamma\acute{o}s$; L. *fāgus*; E. *book*, *beech*. (The A. S. *bōc* or *bōc-trēow* (book-tree) meant, originally, a beech-tree, though it is the mod. E. *book*. *Beech* is a derivative from *bōc*.) Gk. $\phi\acute{\upsilon}\omega$; L. pt. t. *fuī*; E. *be*. Gk. $\phi\acute{\epsilon}\rho\omega$; L. *fero*; E. *bear*. Gk. $\phi\epsilon\acute{\upsilon}\gamma\omega$, I flee; L. *fugio*, I flee; E. *bow* (from A. S. *būg-an*, to bow, turn, flee). Gk. $\phi\rho\acute{\alpha}\tau\eta\rho$; L. *frāter*; E. *brother*. Gk. $\gamma\acute{o}\mu\phi\omicron s$, a peg (Skt. *jambha-s*, a tooth); E. *comb* (with teeth). Gk. $\acute{\alpha}\mu\phi\acute{\iota}$; L. *amb-*, in *ambitus*; A. S. *ymb*, round; G. *um*. Gk. $\gamma\rho\acute{\alpha}\phi\text{-}\omega$, E. *carve*.

20. Idg. B. Gk. β = L. *b* = E. *p*. Rare. The chief example is found at the end of Gk. $\kappa\acute{\alpha}\nu\nu\alpha\beta\text{-}\iota s$, L. *cannab-is*, E. *hemp*. In this case, the E. word was borrowed from Gk. or Latin, but at so early a period that the changes from κ (c) to *h*, and from β (b) to *p*, both took place. It is also held that the L. *labāre* (for **slabāre*), to totter, is allied to the Old Bulgarian *slabŭ*, slack, weak, and to E. *sleep*. The loss of initial *s* before another consonant is not uncommon in Latin.

21. Idg. P. Gk. π = L. *p* = E. *f*. Gk. $\pi\alpha\upsilon\text{-}\rho\omicron s$, little;

L. *pāu-cus*; E. *few*. Gk. *πέλλα*; L. *pellis*; E. *fell*, a skin.
 Gk. *πῶλος*; L. *pullus*; E. *foal*. Gk. *πατήρ*; L. *pater*;
 E. *father*. Gk. *ποῦς* (gen. *ποδός*); L. *pēs* (gen. *ped-is*);
 E. *foot*. Gk. *ἐπτά*; L. *septem*; A. S. *seofon* (E. *seven*).

22. Guttural series. In comparing all the languages of the Indogermanic family, it becomes necessary to recognize *three* series of gutturals, sometimes named the palatal gutturals, the middle (or unlabialised velar) gutturals, and the labialised velar gutturals. But in Greek, Latin, and Teutonic the two former sets may be taken together, and we need only recognize gutturals and (labialised) velar gutturals. The velar gutturals are produced further back in the mouth than the rest, by aid of the *velum palati* or soft palate, and are accompanied, in Greek, Latin, and Teutonic, by labial sounds that modify them; as when, for instance, the Latin velar guttural *qu* is compared with *c*. I denote the Idg. gutturals by GH, G, K; and the velar gutturals by GwH, Gw, Kw; where the 'w' is significant of labialisation.

Idg. Gutturals; GH. The Idg. GH is represented in Gk. by *χ*. In Latin it is (initially) a weak aspirate (*h*) which is sometimes dropped, or, very rarely, *f*; and (medially) a weak *h*, sometimes dropped, or *g* (when following *n*).

Gk. *χ* = L. *h* (or *f*, or *g*, as above) = E. *g*, *y* (initially); *y*, *gh*, *w* (medially or finally).

Gk. *χῆν* (gen. *χηνός* for **χανσός*); L. (*h*)*anser*; E. *goose* (German *gans*: § 18). Gk. *χόρτος*; L. *hort-us*; E. *yard*. Gk. *χλόη*, young verdure; L. *helvus*, light yellow; E. *yellow* (A. S. *geolo*). Gk. *χέω* (for *χέφω*); L. *fundere*; A. S. *gēotan*, to pour, with which is connected E. *gut*.

[This is the chief instance in which Gk. initial χ = L. *f*.] Gk. *χαμαί*, on the ground ; L. *humus*, ground, to which is allied L. *homo*, man, son of earth ; A. S. *guma*, man, whence A. S. *brȳd-guma*, i. e. 'bride-goom,' now altered to *bridegroom*, which first appears in Tyndale (1526). Gk. *ὄχος* (for **φόχ-os*), a chariot ; L. *ueh-ere*, to carry (whence E. *vehicle*) ; A. S. *weg-an*, to carry, whence *weigh* and *wain*. Gk. *πῆχ-υς* (for **φῆχ-υς*), the fore-arm ; E. *bough* (arm of a tree), *bow* ('shoulder' of a ship).

23. Idg. G. Gk. γ = L. *g* = A. S. *c* (E. *k*, *ch*). Gk. *γένος* ; L. *genus* ; E. *kin*. Gk. *γόνυ* ; L. *genu* ; E. *knee* (in which *k* is now silent). Gk. *γινώσκω* ; L. (*g*)*noscō* ; E. *know* (*k* silent). Gk. *γείω* (fut. *γείσ-ω*) ; L. *gus-tāre* ; A. S. *cēos-an* ; E. *choose*. L. *grānum* ; E. *corn*. Gk. *ἀ-μέλγ-ειν* ; L. *mulg-ēre* ; E. *to milk*. Gk. *ἐργ-ον* (for **φεργ-ον*) ; E. *work*. Gk. *ἡγ-έομαι*, Doric *ἀγ-έομαι* (for **σαγ-έομαι*), I show the way ; L. *sag-ax*, quick of perception ; E. *seek*.

24. Idg. K. Gk. κ = L. *c* = E. *h*. Gk. *ἐ-κατόν* ; L. *centum* ; E. *hund-red*. Gk. *κύων* (gen. *κυν-ός*) ; L. *can-is* ; E. *hound*. Gk. *καρδ-ία* ; L. *cord-is*, gen. of *cor* ; E. *heart*. L. *can-o*, I sing ; A. S. *han-a*, a cock (singer), whence E. *hen*. L. *cap-io*, I take ; Gk. *κώπη*, a handle ; E. *heave* (not *have*). Gk. *κρέας* (for **κρέφ-as*), raw flesh ; L. *crū-dus* ; A. S. *hrēa*, E. *raw* (with loss of initial *h*). Gk. *κλυτ-ός*, renowned ; A. S. *hlūd*, E. *loud* (with loss of initial *h*). Gk. *δέκα* ; L. *decem* ; Goth. *taih-un* ; E. *ten* (contracted from **tehun*) ; also *-teen*.

25. Idg. GwH. The fortunes of this original sound are very variable. In Greek it appears not only as χ , but also as ϕ , θ ; in Latin, not only as *h* (initially), but also as *f*, *g*, or (medially) as *b*, *gu*, *u* (consonant), according to the

character of the neighbouring sounds; and in English as *g*, *w*, or is lost. Briefly, Gk. χ (ϕ , θ) = L. *h* (*f*, *g*), medially *b*, *gu*, *u* = E. *g*, *w* (or is lost). Gk. ἐλαχ-ύς, small, insignificant; L. *leu-is*, light, whence E. *levity*; allied to A. S. *leoht*, E. *light* (with regard to weight). Gk. θερμ-ος; L. *form-us*, warm; usually equated with E. *warm*. Gk. θείν-ω, I strike, wound; L. *-fend-o*, as in *de-fendo*, *of-fendo*; A. S. *gūð* (for **gunð*), war, M. H. G. *gund-fano*, war-flag, whence E. *gonfanon*, *gonfalon*. Gk. acc. νίφ-α; L. acc. *niu-em*; E. *snow*.

26. Idg. Gw. Gk. γ , β , δ = L. *g*, *u* (consonant), *gu* (after *n*), lost before *u* (consonant) = E. *qu*, *k* (*c*).

Gk. γυνή, Boeotian βαβά; E. *quean*, *queen*. Gk. βοῦς; L. *bōs* (an Oscan word, for **uōs*); E. *cow*. Gk. βαίνω (for **βav-īω*); L. *uen-io*; Goth. *kwim-an*, E. *come*. Gk. βίος, life; L. *uīuus*, living; E. *quick* (living). Gk. δέλφ-αξ, a pig, δολφ-ός, womb; E. *calf*. Gk. βορ-ός, gluttonous; L. *vor-āre*, to devour, whence E. *voracious*, *devour*. Gk. βαρ-ύς, heavy; L. *gra-uis*, whence E. *gravity*.

27. Idg. Kw, or Q. Gk. κ , π (chiefly before *o*, ω), τ (before ϵ , ι) = L. *qu*, *c* = A. S. *hw*, E. *wh* (also *h*, *f*). Gk. τίς; L. *quis*; E. *who*. Gk. τέτταρες, τέσσαρες; L. *quatuor*; E. *four*. Gk. πότερος, Ionic κότερος; E. *whether* (of the two). Gk. λείπ-ω; L. *lingu-o*; Goth. *leihw-an*, A. S. *lēon*, to lend, allied to which are *loan* and *lend*. Gk. πέντε (for Idg. **penqe*, **penkwe*); L. *quinque*; E. *five*.

It will be seen from the above examples that the Greek and Latin forms are often insufficient for determining the difference between the gutturals and velar gutturals. This is because the cognate words in other Indo-Germanic must also be taken into account. The Lithuanian, Slavonic, Zend, and Sanskrit forms are especially helpful

in determining the quality of the guttural sounds. The shortest way of stating the general result is to say that Sanskrit, Zend, Lithuanian, and Slavonic distinguish the palatal gutturals from the rest, while confusing the middle with the labialised velar gutturals; whilst, on the other hand, Greek, Latin, Celtic, and Teutonic generally distinguish the labialised velar gutturals from the rest, while confusing the middle with the palatal gutturals. This necessarily involves considerable complexity, because no one language distinguishes all three series.

CHAPTER IV

SOME CHARACTERISTICS OF GREEK AND LATIN

28. Forms of Cognate Words. It has already been observed that many of the equations in the last Chapter present considerable difficulties, because only the bare results have, in general, been given. Much collateral evidence has been suppressed, in order that the correspondences of initial letters, or in some cases of medial letters, may be first considered.

It may now be stated that none of the above equations can be allowed to be correct unless they, at the same time, sufficiently account for *all* cognate words in *all* the Indo-Germanic languages that happen to retain the word under consideration. Thus, in considering the Gk. ὀ-δούς, gen. ὀ-δόντ-ος, 'a tooth,' it has been noted that the usual Teutonic stem (corresponding to -δόντ-) is *tanth-*. This stem is modified in each language according to the peculiarities which it favours. In English, as was shown, it has become *tooth*. In Old-Saxon and other Low German languages, the sound of *th* was disliked and became *d*. Hence the form *tand*, as in Old-Saxon, Dutch, Swedish, and Danish. In Icelandic the *nth* was assimilated and become *nn*, whence Icel. *tann-ar*, gen., the nom. form being *tönn* (see Vigfusson). But Old High German is distinguished from Low German by a further shifting of consonants, changing *t* into *z* (pronounced *ts*). Hence the O. H. G. form was *zand*. Modern German has lengthened the *a* and dropped the final *d*; this

gives the form *zahn*, in which *ah* denotes that the *a* is long.

Sanskrit turns an accented *ō* into *ā*; hence the Skt. stem is not *dont-*, but *dant-*, as in the masc. accus. *dant-am*. The Lithuanian is *dant-is*, m., with the same change of *ō* to *ā*.

But some of the Idg. languages used a variant form of the stem, with a weakened vowel, as will be explained hereafter when we come to consider gradation. This appears in the Lat. acc. *dent-em*, O. Welsh *dant*, O. Irish *dēt* (with loss of *n*), and the Skt. alternative form *dat-*, considered as the stem of the nom. *dan*, 'a tooth,' and of *a-dat-kas*, 'toothless.'

Observe that the true forms or stems of substantives can be better obtained from an accusative or genitive than from the nominative case, which frequently differs from the rest by exhibiting a more contracted form. Also, that the likeness between substantives belonging to the Indo-Germanic languages seldom extends beyond the monosyllabic base. There is a great variety of suffixes.

The above consideration of the various forms of the word *tooth* shows that, in testing any alleged equation, we should exhaust all the means at our disposal before finally deciding as to its correctness or otherwise. If we have obtained the correct form of the base, we have a key to every form, however various; the only variation permissible in a base is one due to the particular kind of modification known as 'gradation,' which only affects the vowel-sound. All the forms of *tooth* are ultimately due either to a base **-dont-* or to a base **dēnt-* or **dyt-*, where *ē* represents a very indistinct and indeterminate vowel-sound approaching that of E. *u* in *dunt* (but less

distinct), and *u* represents what is called the 'vocalic *n*,' or an *n* sounded (as it can be) without any vowel at all.

The variations of form are due to the peculiar characteristics of the various languages; each language having ways of its own, and changing its sounds according to its own phonetic laws. Thus, whilst English has treated the Teutonic base *tanth-* so as to produce the modern E. *tooth*, High German has treated the same base in such a way as to produce the modern G. *zahn*. The final results are strikingly dissimilar; and both at the same time differ from the Greek base -*δοιτ-*, on which the nom. *ὀδούς* is founded.

We find, in fact, that the existence of wide differences in form is no presumption against the ultimate identity, or close correlation, of cognate words. It is rather too great a likeness that raises a suspicion. The close resemblance of the E. *deck* to the Dutch *dekken* is fatal to the idea that they may be cognate words. The former is merely borrowed from the latter. With the exception of a single instance, dated 1477, in which *dekke* means 'a material used for covering,' neither *deck*, sb., nor *deck*, vb., has been found in English till after the year 1500.

29. Some characteristics of Greek. We have seen above that, before we can safely decide as to the relation (by cognation) between an English word and a Greek one, we ought to know something as to the respective habits of these two languages. Some knowledge of English peculiarities, sufficient to preserve a student from making gross mistakes, may be gained from the Primer of English Etymology. A proper knowledge of Greek peculiarities

can only be had from books that expressly discuss them. I only propose to give a few hints that are absolutely necessary to a beginner before any progress is possible.

Greek is remarkable for the exactness with which it has, in general, preserved the Indo-Germanic vowels and diphthongs. Sanskrit, on the other hand, is remarkable for the exactness with which it has, in general, preserved many of the Indo-Germanic consonants. We should expect, accordingly (since changes in all languages are continually taking place, especially at the point of least resistance), that the Greek consonants have often suffered strange changes, and that Sanskrit vowels may be expected to show confusion. As a fact, Sanskrit reduced the five short vowels, *a, e, i, o, u*, to three; by the confusion of *a, e*, and *o* under the sound denoted by *a*. The Skt. roots *ad*, 'to eat,' and *ad*, 'to smell,' are reductions from *ed* and *od* respectively. Latin correctly distinguishes between the *ed-* in *ed-ere* and the *od-* in *od-or*.

When we come to examine the Greek consonants, the most striking facts are the frequent disappearance of *s* and the early disappearance in Attic Greek of *f* (digamma) or *w*. We will consider these separately.

30. The treatment of *s* in Greek. I only note here the most striking facts, neglecting details of less frequent occurrence.

Initially. Initial *s* becomes *h*, denoted by the rough breathing. Compare *ἑπτὰ* with L. *septem*, E. *seven*; *ἕζομαι* with L. *sedere*, E. *sit*; *ὄλκος*, 'a furrow,' with L. *sulcus* and the Devonshire *zool*, a plough (A. S. *sulh*); *ἅλς* with L. *sal*, E. *salt*; *ἕπομαι* with L. *sequi*; Attic *ἄδην*, 'enough,' with L. *sa-tis*, allied to A. S. *sæd*, 'sated,' and mod. E. *sad* (altered in sense); Gk. *ἐλίκη*, 'a willow,' L.

salix, prov. E. *sally*; Gk. ἄλλομαι, L. *salire*; Gk. εἶπειν (for εἴπειν from *σέρ-ζειν), to tie, join, L. *serere*; and so on. It should be particularly noted, that English (if native) will serve just as well as Latin for detecting a loss of the Greek *s*. The E. *salve* shows that Gk. ἔλπιος, oil, fat (a rare word noted by Hesychius) was once *σέλπιος; and the E. *sear*, 'dry,' shows that the Gk. αὖ-ος, 'dry,' was once *σαύσ-ος; and this testimony is the more valuable because neither *salve* nor *sear* is represented in Latin.

Greek is not the only language that thus treats its initial *s*. Welsh sometimes does the same; cf. W. *hād*, seed; *hāf*, summer; *hal*, *halan*, salt; *haul*, the sun (L. *sōl*); *helygen*, a willow-tree (L. *salix*); *hen*, old (L. *sen-ex*); &c. And even modern Persian has *haft* for 'seven.'

When Spenser (Fairie Queene, i. 10. 57) has the line:—
'Now are they Saints all in that Citty *sam*'—he uses *sam* in the sense of 'together.' The Greek form is ἄμα.

The prefixes *hemi-* and *semi-* are both in use in English, with the same sense. It is easy to tell which of these is Greek.

The Gk. initial *sw-* became *hw* (E. *wh*) and then *h*. Hence the Gk. for *sweet* is ἡδ-ύς; and for *sweat* is ἰδ-ρώς. Welsh likewise has *hw*, written *chw*, as in *chwŷs* (for **swit-so-*, from **swid-so-*), i. e. 'sweat.'

In all the above instances, *σ* occurs before a vowel or *w*; it is seldom lost before a consonant, though we find *τέγος* as a by-form of *στέγος*. Such loss is most usual before the liquids *μ* and *ν*. Compare Gk. μει-δάω, I smile, with Skt. *smi*, to laugh, and E. *smile*; and *ρίψ-α*, accus., with E. *snow*. It is worth notice that the Teutonic languages are especially tenacious as regards initial *s*; compare E. *s-tream* with Gk. ῥεῦμα, a flow, *rheum*, where

the original Gk. form was *σρεῦ-μα, without the *t*, which only appears in Teutonic and Slavonic.

31. Greek medial *s*. Between two vowels the Gk. *σ* everywhere disappears and the Lat. *s* usually becomes *r*. Wherever *σ* appears between two vowels, it may be suspected of being unoriginal; thus the *σ* in μέσος appears also as *σσ* in μέσσος, and really represents an Idg. *dhi*; μέσσος stands for μέθ-ιος = L. *medius*.

This loss of *σ* is often surprising. The Skt. *janas* = Gk. γένος = L. *genus*; but the Skt. genitive *janasas* = Gk. γένεος or γένους = L. *generis*. The E. *sear* = Lithuanian *saũsas*, dry; but the Gk. (which once was *σαύσος) appears as αῖος. The E. *choose* (cf. L. *gus-tāre*) = Gk. γεί-ομαι, allied to γευσ-τός. The E. *ear* = Goth. *ausō* = Lith. *ausis* = L. *auris* = Gk. οὖς; where the *s* that remains is merely a suffix. In the case of εὔ-ω, 'I burn,' the lost *s* appears as *r* in L. *ūrō*, and as *s* in L. pt. t. *us-si* and the pp. *us-tus*. In *ίός*, 'poison,' the lost *w* and *s* are duly represented in the L. *uīrus*; cf. Skt. *visha*, 'poison'; perhaps the same idea appears in E. *wizened*, 'withered.' The lost *s* in κρύ-ος, 'cold,' appears in κρύσ-ταλλος, ice, and in κρυσ-ταίνειν, to freeze. The lost *s* in ζέ-ειν, to boil, occurs not only in the derivatives ζέσ-ις, ζεσ-τός, but also in E. *yeas-t*.

32. Greek *w*. English (like Latin) is sometimes helpful in restoring a lost *w*. The L. *clāuis*, 'a key,' shows that the form κληίς is for κληφίς. Both L. *nouus* and E. *new* show that Gk. νέος is for *νέφος. So also Gk. οἷς is for ὄφίς; cf. L. *ovis* and E. *ewe*. The L. *cau-ēre*, to take heed, shows that κοέω, 'I mark,' is for κοφ-έω; and the E. *s-how* (verb) further suggests that both the Latin and Gk. forms have lost initial *s*; the A. S. *sceōw-ian* (whence *show* is descended) had the sense 'to

look at carefully.' The *w* in E. *raw* (A. S. *hrēaw*) suggests that κρέ-ας, 'raw flesh,' stands for *κρέφας; and this becomes a certainty when we find that the Skt. form is *kravis*; cf. Russ. *krove*, blood. Gk. λεῖος, smooth, is for λει-φος; L. *laevis*. The L. *uōx* and *uoc-āre* show that Gk. ἔπ-ος stands for φέπ-ος; but it is the E. word *work* that suggests the initial *w* of the Gk. ἔργον, which does not occur in Latin at all. This missing *w* helps to scan Homer's line in the *Iliad* (ii. 338)—

νηπιάχοις, οἷς οὔτι μέλει πολεμήϊα φέργα.

33. Some Characteristics of Latin. Unlike Greek, Latin usually preserves its consonants with more care, especially *v* or *u* (consonant) and the consonantal *i* as in *iugum*. But it usually turns intervocalic *s* into *r*; so that the genitive of *mūs* is not **mūsis* (as it must once have been), but *mūris*. Examples are very common; thus the sb. *rūs* is accompanied by the adj. *rūrālis* (for **rūsālis*); hence E. *rural*. But *w* is lost in initial *wr*; hence L. *rād-ix* (for **wrādix*) is cognate with E. *root* (for **wroot*) and allied to E. *wort*. In this case, E. *root* is really from Norse, and represents Icel. *rōt*; but A. S. has *wrōtan*, to grub up or uproot, and Chaucer says of a sow, that she '*wroteth in everich ordure*'; Parson's Tale, Group I, 157. Compare E. *cataract* (for **catarract*) from Gk. καταρράκτης, allied to καταρρήγνυμι, where the ρρ shows that ρήγνυμι represents **φρήγνυμι*, and is allied to E. *wrack*.

Initial *sw* is not preserved in Latin, but the combination *swē* becomes *sō*, as in *soror*, *sopor*, and *somnus*. Here *soror* is for **svesor* (Skt. *svasar*), the *swe* appearing in O. H. G. *swester*, now spelt *Schwester*. The A. S. form was *sweaster*

(for **swes-tor*), but the *w* has been lost in English through the influence of the Old Norse *systir*, whence E. *sister*. L. *sopor* is for **sweep-or* (cf. Skt. *svap*, to sleep); and L. *somnus* is for **sop-nus* < **sweep-nos*, from the same root. The π remains in Gk. $\psi\pi\nu\sigma$; and appears as *f* (regularly) in A. S. *swefen* or *swefn*, a dream, spelt *sweuen* (= *sweven*) in the MSS. of Chaucer. See the first line of the Romaunt of the Rose.

34. **Diphthongs in Latin.** The Latin diphthongs were, for the most part, much simplified. The L. *au* remains in *plaustrum*, *aura*, and many words; but appears as $\bar{o}$ in *ex-plōdo* (from *plaudo*, § 7) and becomes $\bar{u}$ in *in-clūdo* (from *claudo*, § 13). But the L. *eu* and *ou* both became $\bar{u}$, and were not distinguished. The Old L. form of *dūco* was *douco*; but even *douco* represents an earlier **deuco*, in the prime grade; as will hereafter appear (§ 42). On the other hand, L. *lūc-ēre* is from **louc-ēre*, as it is a derivative form of the second conjugation; Brugmann compares it with Skt. *rōc-aya-ti*, 'he enlightens.'

The L. *ae* (< *ai* in O. Lat. *aidilis*, L. *aedilis*) was at first a diphthong, but became in popular Latin a long open *e*, and was treated in the Romance languages precisely as the short $\check{e}$, which was also open.

The L. *ei* early became $\bar{i}$, as in O. Lat. *deico*, L. *dīco*; and was thus indistinguishable from original $\bar{i}$.

The L. *oe* only survived in a few archaic forms, such as *moenia*, walls, *foedus*, a treaty; it soon passed into $\bar{u}$, as in *ūnus*, one, allied to Gk. $\omicron\nu\eta$, an ace on a die. In some words borrowed from Greek it ultimately became $\bar{e}$; as in *poena*, later *pēna*, from Greek $\pi\omicron\nu\eta$; *Phoebus*, later *Phēbus*, from Greek $\Phi\omicron\iota\beta\omicron\varsigma$.

The most notable change, among the L. short vowels,

is that of δ to $\tilde{u}$ in final syllables, which is extremely common. Hence Gk. sbs. ending in *-os*, *-or* correspond to L. sbs. in *-us* (both masculine and neuter) and *-um* (both masc. and neuter accus. and neut. nominative). Observe that the *-os* of **tempos* (> *tempus*) appears as *-or-* in *temp-or-is*, for **temp-os-is*, which was substituted for an older form **temp-es-is*; see Giles, *Manual of Comp. Philology*, § 351.

The Gk. $\epsilon\phi$ corresponds to a Latin *eu* (*ew*) which was changed into *ou* (*ow*). Good examples appear in *véfos*, new, L. *novus*, *novus*; Gk. *év-véfa*, nine, L. *nouem*, *novem*.

Many of the characteristic vowel-changes, due to the Latin accentuation, have already been explained in § 13.

CHAPTER V

GRADATION : THE VERB 'DRIVE'

35. **Gradation.** There are many English verbs which change the root-vowel in the past tense and past participle. Such of these as, in addition to this change, have (or once had) a past participle ending in *-en*, are called strong verbs, and are of especial value in English. With but few exceptions, arising from sound-association, they contain original roots, and are often cognate with Greek or Latin, but are not borrowed from either of these. When there is no cognate form in Greek or Latin, it is meant that one or both of these languages has no word that can be connected with them. As might be expected, every one of the Indo-Germanic languages sometimes exhibits a root which is found nowhere else, or only in a very small number of the rest.

36. **The verb 'drive.'** The verb *to drive*, which is peculiar to Teutonic, is an excellent example of a strong verb. The past tense is *drove*, and the pp. *driven*. It should be particularly noticed that it is not only the form of the stem of the present tense from which derivatives can be made. Not only can we speak of 'taking a *drive*,' in which case we form a substantive from *drive* itself, but we can talk of 'a *drove* of sheep,' where *drove* is obviously connected with the form of the past tense. And further, we can speak of 'a *drift* of snow,' where *drift* is obviously connected with the stem *driv-* of the pp. *driv-en*. We have, for practical purposes, not only

the form *drive* from which to form new words, but also the forms *drove* and *driv-*. That is, *drive* is an English root, with the power of varying its vowel to long *o* or to short *i*; so that, practically, the form of the root is *drive*, variable to *drove* or *driv-*; just as if we had a root of triple form. The variant forms of the root are called 'grades.' *Drive* may be called the 'prime grade,' as it always agrees with the root by which the verb is best known. *Drove* may be called 'the second grade' without any risk of confusion. It is hardly safe to call it 'a middle grade,' as there are sometimes four grades, and even more are possible. The last-mentioned (*driv-*) is invariably called 'the weak grade,' because the vowel of the past participle is invariably shorter than that of the root; and in Anglo-Saxon the vowel is always as short as it can well be made. In order to illustrate *four* grades, we may take the A. S. *ber-an*, to bear; whence the pt. t. s. *bær*, the pt. t. pl. *bær-on*, and the pp. *bor-en*. Here *ber-* is the prime grade, *bær* is the second, *bær-* is the third or 'long' grade, and *bor-* the weak grade. There is sometimes a 'weakened' grade, as explained in § 41 (i), p. 50.

37. **Strong Verbs.** English has seven conjugations (or sets) of strong verbs, the types of which are *drive*, *choose*, *drink*, *bear*, *mete*, *shake*, and *fall*; as explained in the Primer of E. Etymology, ch. vi. The first six of these exhibit gradation; the Gothic verbs of the seventh conjugation formed the past tense by reduplication.

The verb *to drive* evidently belongs to the same conjugation as *ride* (*rode*, *ridden*), *arise* (*arose*, *arisen*), *write* (*wrote*, *written*), *shrive* (*shrove*, *shriven*). The verb *to strive* is of F. origin, so that the pt. t. and pp. ought, regularly, to have been *strived*; but it formed so good a *rime* to

drive that it was added to the set, with the pt. t. *strove* and the pp. *striven*. *Rive* and *thrive* are properly of Norse origin, and the past participles *riven* and *thriven* are suitable; but *rove* and *throve* were new forms, easily coined on account of their obvious convenience. But some verbs that once had gradations like the rest have been tampered with, and their symmetry has been spoilt. Thus *to bite* has the correct pp. *bitten*, but the pt. t. *bote* has been altered to *bit*. The verb *to shine* has the correct pt. t. *shone*, though the *o* in it is often shortened; but the pp. *shinnen* would now excite surprise. The verb *to glide* has well-nigh lost its grades, and degenerated into a weak verb, with the pt. t. and pp. *glided*; yet *glode* has been used by some writers in the nineteenth century, though no one seems to have revived the once correct *glidden*.

But the student of philology should learn to believe in the original regularity of these so-called 'irregular verbs.' He should feel convinced that *bote* and *shinnen* and *glode* and *glidden* have merely perished through misfortune, and must all have been once in being. The following quotations may help him in the faith.

'This free man *boot* of [bit off] his owne tonge'; Chaucer, tr. of Boethius, bk. ii. prose 6. 'Til the sunne haueth *sinen* thries'; The Bestiary, l. 18; where *sinen* is the error of a Norman scribe for *shinen*; as the early Norman was in the same difficulty as the Ephraimite who could not say *Shibboleth*. 'And forth upon his way he *glood*'; Chaucer's Sir Thopas. 'The mone [moon] . . . was in-to Cancre *gliden*'; Chaucer, Cant. Tales, E 1887. In *gliden*, the *i* is short, and it rimes with *biden*, pp. of M. E. *biden*, to bide; for the verb *to bide* (with its derivative *a-bide*) also belongs to this conjugation.

38. The 'drive'-gradations in Greek. I have already given the gradations in Greek that are equivalent to those found in our strong verbs (Primer of E. Etymology, p. 69). But I propose here to arrive at them somewhat differently, and to give many more Greek examples.

The problem is to find the Greek diphthongs or vowels that correspond to the gradations found in *drive*, *drove*, *driven*. This can be done by considering the values of the vowels $\bar{i}$, $\bar{o}$, and $\bar{\imath}$ as here used.

The English $\bar{i}$, formerly sounded as the *i* in *machine*, has two primitive values. It either goes back to Idg. $\bar{i}$; or else to Idg. *ei*. In the case of strong verbs it is invariably the latter; and the Idg. *ei* is preserved in Greek. Hence the $\bar{i}$ of *drive* answers to Gk. $\epsilon\iota$.

The E. $\bar{o}$, as in *drove*, arises regularly from the A. S. $\bar{a}$; as in A. S. $\bar{a}c$, an *oak*. Twenty-five more examples are given in Prim. E. Etym., p. 48. The A. S. $\bar{a}$ invariably represents a Gothic and Teutonic *ai*; as in Goth. *aiths*, A. S. $\bar{a}\bar{d}$, an oath. And lastly, in the case of a 'second grade,' the Teut. *ai* (which = Gk. $\alpha\iota$ or $\omicron\iota$) always corresponds to Gk. $\alpha\iota$; and the Teut. *au* (= *av* or *ov*) to Gk. $\omicron\upsilon$. Hence the Gk. diphthong sought for is $\alpha\iota$.

The E. short $\bar{\imath}$ in *driven* is, practically, Indo-Germanic; so the Gk. equivalent is short ι . Hence the Gk. grade-vowels are evidently $\epsilon\iota$, $\alpha\iota$, ι . It remains to find examples. Perhaps $\pi\epsilon\iota\theta\text{-}\omega$, $\pi\acute{\epsilon}\text{-}\rho\omicron\iota\theta\text{-}\alpha$, $\epsilon\text{-}\pi\iota\theta\text{-}\omicron\nu$, and $\lambda\epsilon\acute{\imath}\pi\text{-}\omega$, $\lambda\acute{\epsilon}\text{-}\lambda\omicron\iota\pi\text{-}\alpha$, $\epsilon\text{-}\lambda\iota\pi\text{-}\omicron\nu$ are the most obvious; but there are more to be found, as I propose to show.

39. Examples of roots containing $\epsilon\iota$.

(a) Idg. root **weid* (*woid*, *wid*); A. S. root **wūt* (*wāt*, *wit*), to know. The variation from Idg. *d* to A. S. *t* is in accordance with Grimm's Law, which must always be

allowed for. The Gk. *w* disappears. The Latin form will be *uīd* (*uīd*, *uid*); the L. second grade being changed from *uoid* to *uīd* by the action upon the *o* of the preceding *u*; cf. Gk. *oikos* = L. **uoikos* > *uīcus*. Prime grade: Gk. *εἶδ-ον*, I saw. Second grade: Gk. *οἶδ-α*, I have seen, I know; L. *uīd-ī*, I have seen; A. S. *wāt*, I know, whence M. E. *wōt*, *woot*, I know, shortened to E. *wot* by the following *t*, as in A. S. *hāt* > E. *hot*; cf. the short *oo* in *foot* (A. S. *fōt*) as compared with *oo* in *doom* (A. S. *dōm*). Weak grade: Gk. *ἰδ-εῖν*, to see; E. *wit*, to know; L. *uid-ere*, to see. The same grades appear in derivatives, as in Gk. *εἶδ-ος*, shape, form, orig. 'appearance,' whence the suffix *-id* in *rhombo-id*, *sphero-id*, *cyclo-id*, *astero-id*, &c., and the sb. *εἶδ-ωλ-ον*, an image, likeness, E. *idol*. Another derivative is E. *history* (L. *historia*, Gk. *ἱστορία*), from **ῥῖδ-τωρ* > *ἱστωρ*, *ἱστωρ*, knowing. Other secondary derivatives appear in *vis-ible*, *vis-ion*, *vis-it*, *vis-or*, *vis-ta*, *vis-ual*; and in the native words *wise* and *wit-ness*. The Skt. second grade is *vēd*-; whence the word *Veda*, lit. 'knowledge,' used as the name of certain Sanskrit writings.

(b) Root **leiq** (*loiq**, *liq**); Teutonic root **līhw* (*laih**w*, *lih**w*), to leave. The *q** is Gk. *π*; hence the Gk. is *λείπ-ω*, *λέ-λοιπ-α*, *ἔ-λιπ-ον*. Latin has an 'infix' *n*; as in *li(n)qu-ere*, pt. t. *līqu-ī*, pp. *līc-tus* (*λειπ-τός*). Hence E. *relinquish*, *relict*, as borrowed words. The weak grade appears in L. *re-liqu-us*, whence E. *relic*. Goth. writes *ei* (pronounced *ī*) for Germanic *ī*; hence Goth. *leihw-an*, to leave to, to lend, A. S. **līh-an*, contracted to *lēon*, to lend. The A. S. pt. t. is, regularly, *lāh*, whence was formed a sb. with an *i*-stem (cf. the third declension in Latin) due to an Idg. suffix *-ni-*, thus giving an A. S. form **lāh-ni* (Gothic **laih**w-nis*, neuter). The *-i-* caused muta-

tion of $\bar{a}$ to $\bar{e}$ (Primer of E. Etym., p. 58), whilst the h was dropped; the result being A. S. *læn*, cognate with the Icel. *lān*, a loan. The mod. E. *loan* is, accordingly, not a native word, but of Norse origin. The E. *oa* here corresponds to an older $\bar{a}$, which in this rare instance is merely adopted or copied from Norse. Finally the Teutonic *ai*, which in Norse is usually represented by *ei*, is in this particular instance represented by $\bar{a}$ on account of the following h (Noreen, § 57).

40. **Connexion by gradation.** It often happens that all the parts of the Gk. verb are not recorded; but it makes no difference to the principle of gradation in derivatives. We may always connect ϵ with α and ι in cases where the consonants of the root clearly appear, and when there is an evident (or probable) connexion in sense.

(c) Root **steigh* (*stoigh*, *stigh*); Teutonic root **stīg* (*staig*, *stig*), to ascend. Gk. $\sigma\tau\epsilon\acute{\iota}\chi\omega$, I go up, mount, ascend, journey; 2 aor. $\xi\sigma\tau\iota\chi\omicron\nu$. We should expect a perf. t. $*\xi\sigma\tau\omicron\iota\chi\alpha$, but I do not find it recorded. Yet there is an obvious derivative in $\sigma\tau\omicron\iota\chi\omicron\varsigma$, a row, as well as in $\sigma\tau\acute{\iota}\chi\omicron\varsigma$, with a like sense. The latter appears in *di-stich*, *hemi-stich*. The corresponding A. S. verb is *stīg-an*, to climb (pt. t. *stāg*, pp. *stig-en*); whence we have several native E. derivatives, such as *stile* (A. S. *stig-el*), *stirrup* (A. S. *stig-rāp*, 'rope to mount by'), *sty* (A. S. *stig-o*, a pen for cattle), from the weak grade *stig-*; *sty* on the eye, A. S. *stig-end*, from the prime grade *stīg-*; and *stair* (A. S. *stāg-er*, mutated form from *stāg-*), from the second grade *stāg*. Another derivative from the weak grade *stig-* is the A. S. *stī-weard* (for **stig-weard*), one who looks after the penned cattle; E. *steward*.

(d) Root **leip* (*loip*, *lip*); A. S. *līf* (*lāf*, *lif*), to smear,

to anoint; whence arose the notion of 'sticking fast to.' The weak grade appears in Skt. *lip*, to anoint, smear; cf. Lithuanian *lip-ti*, to stick to; also in Gk. *λίπ-ος*, fat, *λίπ-αρός*, fatty, oily. The verb is preserved in A. S. *be-līf-an*, to remain, pt. t. *be-lāf*, pp. *be-līf-en*. The cognate word in German is contracted to *bleiben*. From the prime grade *līf* comes the A. S. *līf*, E. *life*, i. e. 'continuation of existence.' From the second grade *lāf* (with mutation of *ā* to *ǣ*) we have A. S. *lǣf-an*, E. *leave*, 'to allow to remain.' From the weak grade *līf* was formed the secondary verb *to live*, i. e. 'to continue.' There is no connexion between these words and the word *leave* in the sense of 'permission,' which belongs to a root **leubh*. See § 43 (*k*).

(e) Root **bheid* (*bhoid*, *bhid*); A. S. *bīt* (*bāt*, *bit*), to cleave (hence, to bite). Weak grade: Skt. *bhid*, to cleave; L. *fi(n)d-ere*, to cleave; A. S. *bit-or*, lit. 'biting,' E. *bitter*; A. S. *bit-a*, a morsel, E. *bit*. Prime grade: L. *fid-ī*, perf. tense; A. S. *bīt-an*, to bite.

41. Further connexion by gradation. It appears from such an example as that in § 40 (*c*) that E. *distich* is co-radicate with (i. e. from the same root as) E. *stair*. The former is a borrowed word, from the weak grade, and the latter a native word, from the second grade of the same root **steig-*. A similar relationship usually holds even in cases where the root does not appear as a known verb; and we may go so far as to consider words as co-radicate, provided that the consonants of the root are the same (such as *st.g*) and the vowels are regularly related by gradation. It is quite unnecessary that the vowel-sounds should exhibit the same grade. I now proceed, accordingly, to indicate relationships

between E. and Gk. words in a much more brief manner. The student can easily work them out from the details given. All the words below are from a root-vowel *ei*, and belong (as it were) to the *drive*-conjugation.

(f) Root **g(w)lei*, to stick, cleave to. Second grade: γλοι-ός, sticky substance, gum; L. *glū-ten*, whence E. *glutinous* and *glue*; A. S. *clā-m*, earthenware, orig. 'wet earth,' whence prov. E. *cloam*, earthenware; A. S. *clē-g* (with mutation of *ā* to *ē*), from a Teut. type **klai-jā*, fem., E. *clay*.

The sense suggests that A. S. *clī-f-an*, to *cleave*, stick to, is ultimately from the same root.

(g) Root **deik*, to show, point out; Teut. **tīh*. Gk. δέικ-νμι, I show; L. *dīco*, I say, whence E. *diction*, and many other derivatives. Weak grade: δίκ-η, right, custom; L. *dic-āre*, to appoint, whence E. *indicate*, &c. It is remarkable that δεικ- becomes δειγ- before an *μ*, as in δέ-δειγ-μαι, perf. pass., δείγ-μα, a pattern, proof; and this new base δειγ- corresponds to Teut. *tīk-*, or in the second grade *taik-*, as in Goth. *taik-ns*, A. S. *tāc-n*, E. *token*.

(h) Root **dheigh*, to mould, form. Gk. τεῖχ-ος (for **θεῖχ-ος*), a wall (orig. a made rampart of earth); Goth. *deig-an*, to knead. Second grade: τοῖχ-ος, a wall; Goth. *daig-s*, A. S. *dāg*, E. *dough*. Weak grade: L. *fig-ulus*, a potter; *fi(n)g-ere*, to mould, whence E. *feign*, *fiction*, *figure*. The E. *para-dise* is an Eastern word (παρά-δευρος), corresponding to the Zend *pairi-daēz-a*, a park; where *pairi* is the equivalent of Gk. περί, around, and *-daēz-* represents the second grade **dhoigh-*; the orig. sense was 'wall built round,' hence 'park,' 'pleasure-ground,' with a secure fence.

(i) Root **klei*, to incline, lean. Besides the vowel-

grades *ei*, *oi*, *i*, we sometimes find in Greek another grade, viz. *ī*. This is regarded as another weak grade, in which *ei* is somewhat reduced to *ī*, without being fully reduced to *ī*. I shall call it the 'weakened' grade. This appears as *klī-* in Gk. *κλῖ-νειν*, to incline, cause to slant, *κλῖ-νη*, a bed (whence E. *clinical*), *κλῖ-μαξ*, a ladder (whence E. *climax*). Prime grade: L. *ac-clī-uis*, *dē-clī-uis* (whence E. *acclivity*, *declivity*). L. *in-clī-nāre*, *dē-clī-nāre* (whence E. *incline*, *decline*) may belong to this grade or to the 'weakened' grade. Weak grade: *κλί-μα*, a slope, zone (whence E. *climate*, *clime*). Second grade: *kloi-* = Teut. *hlai-*, as in Goth. *hlai-w*, a grave (tumulus), A. S. *hlāw*, *hlēw*, a 'low,' i.e. grave-mound, as in *Tad-low*, *Trip-low*, and many place-names; also (with mutation of *ā* to *ē*) A. S. *hlē-ne*, 'sloping,' hence *fragile*, *thin*, E. *lean*, adj.; A. S. *hlē-nan*, to cause to lean, to lean, E. *lean*, verb.

(k) Root **leigh*, to lick. Prime grade: *λείχ-ω*, I lick (cf. E. *lich-en*). Weak grade: L. *lig-ula*, a little tongue (whence E. *ligule*), *li(n)g-ere*, to lick; A. S. *licc-ian* (from a base **ligh-n-*), E. *lick*; see Brugmann, i. § 421 (7).

(l) Root **reip-*, to tear down. Prime grade: Gk. *ῥείπ-εσθαι*, to be torn down, fall in ruins; L. *rīp-a*, bank of a river (with broken edge; whence E. *river*); Teut. **rīf-*, as in O. Norse *rīf-a*, to tear, E. *rive*. Weak grade; *ῥίπ-νη*, broken cliff; E. *rīf-t*, *riv-en*.

(m) Root **stei-*. Weakened grade: *στί-α*, *στί-ον*, a small stone, a pebble. Second grade: Goth. *stai-ns*, acc. pl. *stai-nans*; A. S. *stā-n*, E. *stone*. The *-n* in A. S. *stā-n* is a suffix, representing Idg. *-no-*, as in L. *pater-nus*, *som-nus*.

(n) Root **sweid-*, to sweat. Weak grade: *ιδ-ίω*, I sweat (for **σφιδ-ίω*), Ger. *schwitz-en*, to sweat, *ιδ-ρώς*, sweat.

Second grade: L. *sūd-or* (**svoid-or*), sweat; A. S. *swāt*, sweat, whence the verb *swātl-an*, to sweat, for **swāt-ian*, with *i*-mutation of *ā* to *ē*. The A. S. *swāt* would give a mod. E. *swote*, which we do not recognize; hence it is only the *verbal* form that has really survived, though *sweat* is now used as a substantive as well as a verb. The shortening of *ea* to *e* (as in *bet*) is due to the final *t*.

CHAPTER VI

GRADATION: THE VERB 'CHOOSE'

42. The verb 'choose.' In the *drive*-conjugation (Ch. V) we found the gradations *ei*, *oi*, *i*, with, occasionally, a 'weakened' grade $\bar{e}$.

The *choose*-conjugation is precisely parallel to it throughout, if we substitute the semi-vowel *u* for the semi-vowel *i*. That is to say, the gradations are *eu*, *ou*, *u*, with, occasionally, a 'weakened' grade $\bar{u}$.

Unfortunately, though there were once several verbs of this conjugation in English, not one of them has come down, in an equivalent form, to modern times. Many are obsolete, and the rest have changed.

The verb *to shoot* is somewhat common in Mid. Eng. in the form *schēten*, which (if it had lived) would have given us a modern form *sheet*. Thus in *The Tale of Gamelyn*, l. 674, we have: 'But if we meete with a deer to *scheete* therto,' i. e. to shoot at. If we could imagine a modern English verb *to sheet*, with a past tense *sheat*, and a pp. *shotten*, we should have a good example of a verb of the *choose*-conjugation. It is true that we now make no difference in sound between *ee* and *ea*, but they represent sounds that formerly differed; *ee* answers to A. S. $\bar{e}o$, and *ea* to A. S. $\bar{e}a$. The old A. S. form of *shoot* was *scēotan*, pt. t. *scēat*, pp. *scoten*, with the grades *scēot-*, *scēat*, *scot-*, answering to Teutonic *skeut-*, *skaut*, *skot-*; see *Primer of E. Etymology*, p. 28. These Teut. gradations exhibit *eu*, *au*, *u*, answering to the Idg. gradations *eu*, *ou*, *u*.

The 'weakened' grade $\bar{u}$ is common in Teutonic, and appears in the infinitive moods of A. S. *būg-an*, to bow, *lūc-an*, to lock, and others.

All that need be remembered are the Idg. gradations *eu*, *ou*, *u*, and $\bar{u}$; answering, regularly, to the Teutonic gradations which appear in Gothic as *iū* (for *eu*), *au*, *u*, and $\bar{u}$, and in A. S. as *ēo*, *ēa*, *o*, and $\bar{u}$.

Examples containing Idg. *eu* are the verbs *cleeve* (so in 1578), to split, now spelt *cleave*, from A. S. *clēof-an*; *creep*, A. S. *crēop-an*; Scottish *dree*, to endure, A. S. *drēog-an*; *flee*, A. S. *flēon*; *freeze*, A. S. *frēos-an*. These are all that preserve A. S. *ēo* = E. *ee* (altered to *ea* in *cleave*).

Modern German sometimes retains *au*, where A. S. has *ēa*. Exx. G. *baum*, tree = A. S. *bēam*, tree, also *beam*; G. *thau*, A. S. *dēaw*, dew; G. *laub*, A. S. *lēaf*, leaf; G. *taub*, A. S. *dēaf*, deaf; G. *auge*, A. S. *ēage*, eye; G. *haufe*, A. S. *hēap*, heap; G. *laufen*, A. S. *hlēapan*, to leap, to run. But more frequently, it has *ō*; as in G. *ohr*, A. S. *ēare*, ear; G. *floh*, A. S. *flēah*, flea. Observe the frequent use of E. *ea* in these words, as corresponding to the 'open' $\bar{e}$ of Middle English due to A. S. *ēa*.

Observe the A. S. short *o* in the weak grade; it invariably answers to the Gothic and Idg. *u* in the past participles of this conjugation.

43. I proceed to give examples, as before.

(a) Root **bheu*, to be; Teut. **beu*. Prime grade: A. S. *bēo-n*, to be, *bēo*, I be (am). Weak grade: $\phi\acute{\upsilon}\text{-}\sigma\mu\alpha\iota$, I become; $\phi\acute{\upsilon}\text{-}\sigma\iota\varsigma$, nature, whence E. *physic*; L. *fu-ī*, I was; *fu-tūrus*, whence E. *future*. Weakened grade: A. S. *bū-an*, to dwell; O. Norse *bū-ð*, a dwelling, E. *booth*; A. S. *ge-bū-r*, a dweller, *nēah-bū-r*, one who dwells nigh, E. *neighbour*; A. S. *bū-r*, a chamber, E. *bower*.

(b) Root **bheudh*, to observe, perceive; Teut. **beud*. Prime grade: *πείθ-ομαι* (for **φείθ-ομαι*), I ask, learn, understand; A. S. *bēod-an*, to announce; E. *bid*. Weak grade: *πν(ν)θ-άνομαι* (used like *πείθ-ομαι*); Skt. *budh*, to awake, perceive, understand, pp. *bud-dha-*, 'the enlightened,' E. *Buddha*; A. S. *bod-ian*, to proclaim, E. *fore-bode*.

(c) Root **bheug*, to bow, to bend, turn aside; Teut. **beug*, instead of the regular **beuk*. Prime grade: *φεύγ-ω*, I flee. Weak grade: L. *fug-io*, I flee, *fug-a*, flight, whence E. *fugue*; *fug-äre*, to put to flight; A. S. *bog-a*, E. *bow* (weapon). Weakened grade: A. S. *būg-an*, E. *bow*, to bend. The E. *bight*, a bay, coil of rope, A. S. *byh-t*, is formed, with mutation of Idg. *u* (> A. S. *o*) to *y*; i. e. from the weak grade; with the original sense of something 'bowed' or bent.

(d) Root **dheubh*, to raise a smoke, to stupefy; Teut. *deuð*. Weak grade: *τίφ-ω* (for **θύφ-ω*; cf. fut. *θύψω*), I raise a smoke; *τυφ-λός*, blinded (with smoke), blind. Second grade: Goth. *daub-s*, deaf, orig. 'made stupid' (cf. Gk. *τῦφ-ος*, mist, stupor); A. S. *dēaf*, E. *deaf*. With regard to the last example, it may be noted that examples of A. S. *b* for Idg. *bh* occur only when the *bh* is initial; otherwise, the Idg. *bh* is usually represented by A. S. *f*. See examples (g) and (k) below.

(e) Root **geus*, to taste, prove, choose; Teut. **keus*. Gk. *γείω* (for **γείσ-ω*), I give a taste of; *γείομαι*, I taste; *γευσ-τός*, to be tasted; A. S. *cēos-an*, I choose. Weak grade: L. *gus-tus*, taste, whence E. *gust* in the sense of 'relish'; *gust-āre*, to taste.

(f) Root **gheu*, to pour out; Teut. **geu*. Sometimes extended to **gheud*; Teut. **geut*. Gk. *χέω* (for **χέψ-ω*), I pour out; *χεῖμα*, a flood, stream; Goth. *giut-an*, A. S.

gēot-an, to pour out; L. *fūsus* (for **fūd-tos*), poured out (whence E. *fuse*, *confuse*, &c.). Weakened grade: Gk. *χυ-λός*, *χυ-μός*, juice (whence E. *chyle*, *chyme*). Weak grade: L. *fut-tilis* (for **fud-tilis* ?), *fū-tilis*, easily pouring out, idle (whence E. *futile*); A. S. *gut*, a channel, E. *gut*. And cf. *in-got*; also (from L.) *confute*, *refute*.

(g) Root **gleubh*, to cleave, cut; Teut. *kleuð*. [Teut. *ð* is 'bilabial' *b*, found in O. Saxon, where it occurs only medially, and corresponds to A. S. *f*; see ex. (d).] A. S. *clēof-an*, to cleave; L. *glūb-ere*, to cut off bark, to peel, *glū-ma*, husk, whence E. *glume*. Weak grade: γλύφ-ω, I hollow out, carve, γλυφ-ίς, notch of an arrow, γλυπ-τός, fit for carving (E. *hieroglyphic*, *glyptic*); A. S. *cluf-u*, a bulb, or spherical shell of a bulb, prov. E. *clove*; Icel. *kluf-t*, Swed. *klyf-t* (with mutation of *u* to *y*), E. *clift*, now spelt *cleft*.

(h) Root **keudh*, to hide; Teut. **heud*. Gk. κεύθ-ω, I hide. Weak grade: L. *cus-tōs* (for **kudh-tōs*), 'one who hides,' a guardian, whence E. *custody*; Goth. *huz-d*, A. S. *hor-d* (with *r* for *z*), E. *hoard*. Weakened grade: A. S. *hūs* (from Teut. type **hūd-som*, neuter), E. *house*; A. S. *hȳd-an* (for **hūd-ian*, with mutation of *ū* to *ȳ*), E. *hide*, verb.

(i) Root **kleu*, to hear; Teut. **hleu*. Gk. κλέφ-ομαι, I am celebrated, κλέφ-ος, rumour, renown. Weak grade: κλύ-ω, I hear, L. *clu-o*, whence *clu-ens* > *cli-ens*, a listener, a client (whence E. *client*); κλυ-τός, L. *in-clu-tus* > *in-cli-tus*, renowned; A. S. *hly-st*, hearing (with mutation of *u* to *y*), *hly-st-an*, to hearken, E. *list-en*. Weakened grade: κλύ-θι, hear thou; A. S. *hlūd*, E. *loud*. See § 41 (i).

(k) Root **leubh*, to desire; Teut. **leub*. A. S. *lēof*, E. *lief*, i. e. dear. Second grade: A. S. *lēaf*, E. *leave*, i. e. permission. Teut. **laub-ian*, to hold dear, believe in;

whence A. S. *ge-tief-an* (with mutation of A. S. *ēa* (Teut. *au*) to *ie*), to believe, whence E. *be-lieve* (with *be-* prefixed, instead of *ge-*). Weak grade: L. *lub-et*, it pleases; A. S. *luf-u*, E. *love*.

(l) Root **leuq*, to shine; Teut. **leuh*. Gk. λευκ-ός, white, bright; A. S. *tēoh-t*, whence E. *ligh-t*. Second grade: L. *lūc-ēre*, to shine, whence E. *lucid*; *lū-men* (for **lūc-men*), light, whence E. *luminous*, *limn*; L. *lū-na* (for **louc-sna*), the moon, or 'giver of light,' whence E. *lunar*, *lunacy*; see § 34, and Brugmann, i. § 218.

(m) Root **pleu*, to swim, float, flow; Teut. **flew*. Gk. πλέω (for **πλέφ-ω*), fut. πλεύ-σω, I swim, sail. We also find the root extended to **pleud*, Teut. **fleut*, whence Lithuan. *plūd-īs*, the float of a fishing-net. Hence, in the prime grade, A. S. *flēot-an*, to float, whence *flēot-ig*, flowing onward, and the E. adj. *fleet*, swift; also A. S. *flēot*, a ship or a number of ships, E. *fleet*, a navy. Weak grade: L. *plu-it*, it rains; A. S. *flot-ian*, E. *float*, vb. We also find, in this instance, a third or long grade, as in Gk. πλω-τός, swimming, floating; Goth. *flō-dus*, a river, A. S. *flō-d*, E. *flood*. Here *ō* represents Idg. *ōu*.

(n) Root **pneu*, to blow, breathe; Teut. **fneu(s)*. Gk. πνέφω, I breathe, πνεῦ-μα, breath, whence E. *pneumatic*; A. S. *fnēo-s-an*, to breathe hard, Mid. E. *fnēs-en*, also *snēs-en* (an imitative form, with *sn* for *fn*), mod. E. *sneeze*. Weak grade: A. S. *fnor-a* (for **fnus-a*), a sneezing; which seems to have suggested mod. E. *snore* (as an imitative form similar to **fnore*), hard breathing.

(o) Root **reudh*, to be red; Teut. **reud*. Gk. ἐ-ρεΐθ-ω, I make red; A. S. *rēod-an*, to be red. Second grade: A. S. *rēad*, E. *red*. Weak grade: ἐ-ρϋθ-ρός, red; L. *rub-er*, red; ἐ-ρϋσ-ίπελας, redness (E. *erysipelas*); A. S. *rud-ig*, E.

rud-dy. (The *f* in L. *rufus*, red, is abnormal, because it is a dialectal form. The *b* in *ruber* is regular.)

(*p*) Root **sgeu*, to cover; Teut. **skeu*. A. S. *scēo*, shade. Weakened grade: σκῦ-τος, hide, skin; L. *scū-tum*, a shield, whence E. *esquire*, *escutcheon*; ob-*scū-rus*, dim, whence E. *obscure*; O. Norse *ský*, a cloud (with mutation of *ū* to *ȳ*, the original base being **skū-ȝom*, neuter, Noreen), E. *sky*.

(*q*) Root **sreu*, to flow; Teut. **streu* (with inserted *t*). Gk. ῥέφ-ω, I flow, fut. ῥεύ-σομαι; 1 aor. ἔρρευσα (for **ἔσρευσα*); 2 aor. ἐρρύην (for **ἔσρύν*), so that the initial *σ*, lost in the present, is represented by the former *ρ* in ἔρρευσα, ἐρρύην; ῥεῦ-μα, a flow, whence E. *rheum*; Irish *sru-aim*, a stream. Second grade: A. S. *strēa-m*, E. *stream*.

(*r*) Root **yeug*, to join, yoke together; Teut. **yeuk*. Gk. ζεύ-νυμι, I yoke. Weak grade: Gk. ζυγ-όν, a yoke; L. *iug-um*; A. S. *geoc* (with *ge* for *ȝ*); E. *yoke*. Also L. *iu(n)g-ere*, to join, with inserted *n*; *con-iux* (gen. *con-iug-is*), a spouse; *iux-tā* (for **iug-(i)s-tā*), near; hence E. *join*, *junction*, *conjugal*, *joust*, *jostle*. Also *jugular* (from *iugum*).

CHAPTER VII

GRADATION: THE VERB 'DRINK'

44. The verb 'drink.' There are several verbs in English belonging to the same conjugation as the verb *to drink*, in which the gradation is well marked even in modern English. Such are: *drink, drank, drunk*; *shrink, shrank, shrunk*; *spring, sprang, sprung*; *swim, swam, swum*. Others that were regular in Anglo-Saxon are so no longer; thus the A. S. *bind-an*, pt. t. *band*, pp. *ge-bunden*, is now *bind, bound, bound*. Here the pp. *bound* or *bounden* is due to the lengthening of the short *u* before *nd*; but the pt. t. *bound* is merely due to confusion with the past participle, and is unoriginal.

To this class belong all verbs in which the root-vowel (originally *e*) is followed by *two* consonants, the former of which is (in all but a very few cases) either *l, m, n, or r*. It will be sufficient to consider roots that contain either *el, em, en, or er*; and it will here be convenient to consider those that contain *en* first.

We have already seen that roots containing *ei* have *oi* in the second, and *i* in the weak grade; whilst *eu* is similarly graded to *ou* and *u*. It is obvious that, if we start from a root containing *en*, and suppose the gradations to be precisely parallel to the former, the second grade will contain *on*, and the weak grade *n*. But this form of the weak grade raises a difficulty, viz. as to how this *n* is to be pronounced when flanked by consonants, in a syllable which will then contain no apparent vowel.

In order to meet this difficulty, Brugmann brought forward the observation that *n* is not always consonantal, but is sometimes what may be called a *sonant*, inasmuch as it can form a syllable by itself, and often does so in modern English. For when we say *smitten*, or *bitten*, the pronunciation may be denoted by (smit'n) or (bit'n); the second syllable consisting simply of a 'sonant *n*,' the sound of which (though it is unaccented) can be dwelt on, and continued at pleasure, as is the case with an ordinary vowel such as *a* in *father*. Another supposition that will suit the problem equally well, is to suppose that the *n* was preceded by a dull and indeterminate vowel, such as is heard in the last syllable of *abandon* (əbæn'dən) or *tendon* (ten'dən). In accordance with this, Brugmann, in his latest work, viz. his *Kurze Vergleichende Grammatik der idg. Sprachen*, § 184, uses the symbol *ɳ* as the sign for a sonant *n*, observing at the same time that it is hardly possible to determine in all cases whether the *n* was wholly vocalic, or whether there may have been some 'residuum' of a preceding vowel, which might be denoted by employing *en* or some similar symbol. I think the most likely supposition is that different languages may have treated the 'sonant *n*' in different ways, as the symbols which they employ seem to show. In practice, it is best to use *y* as the *general* Idg. symbol, and to observe its treatment in different languages. It evidently arose from the occurrence of an *en* or *on* in an unaccented syllable, where the vowel was indistinctly pronounced. Compare M.E. *botoun* (botuun') with the modern E. form *búton*.

45. Treatment of Sonant *n* in Greek, Latin, and Teutonic. There are plentiful examples to show that

the sonant *n* usually becomes *a* in Greek (the *n* itself disappearing unless a sonant follows); *en* or *in* in Latin; and *un* in Teutonic. Thus we find a first grade *πενθ-* in *πένθ-ος*, grief; a second grade in *πέ-πονθ-α*, I have suffered; and a weak grade in *πάθ-ος*, suffering (E. *pathos*); allied to *ἐ-παθ-ον*. Again, comparing Gk. *δόγμα* (for **δόκ-μα*) with the L. *documentum*, and the pl. *δόγ-μα-τα* with the L. *docu-men-ta*, we see that the Gk. *-μα-* = L. *-men-* = Idg. *-my-*. Similarly, the Gk. *δαρός* is L. *densus*, thick, E. *dense* = Idg. **dṛsus*. In connexion with the negative *νη-* in *νη-πενθήs*, free from sorrow (cf. E. *nepenthe*), and *ne-* in L. *ne-fas*, we have the extremely common and important negative prefix *ἡ-*, which usually appears as Gk. *ἀ-*, L. *in-*, E. *un-*. All three forms are represented in English; as in *a-pathetic*, of Greek origin; *in-nocent*, of Latin origin; and *un-worthy*, a native word. So also in *an-archy*, where the Gk. form is *ἀν-* (*en-*), because it is followed by *a*.

The other sonants are similarly represented, and it is sufficient to state the results. These are: *em* gives a second grade *om*, and a weak grade *ḡ*; the last appears as Gk. *a* (or *αμ* before a vowel), L. *em* (or *en*), E. *um* (or *un*, *n*). Ex. Idg. **dek-ḡ*, ten; Gk. *δέκ-α*, L. *dec-em*; Goth. *taihun* (for **teh-um*), E. *-teen*, shorter form *ten*. So also: *er* gives a second grade *or*, and a weak grade *ṛ*; the last appears as Gk. *ap* or *ρα*, L. *or* or *ur*, Teut. *ur*, A. S. *ur*, *or*. Exx. *δέρκ-ομαι*, I see; pt. t. *δέ-δορκ-α*; 2 aor. *ἔδρακ-ον*. The L. *porc-a*, a ridge between two furrows, and A. S. *furh*, a furrow, exhibit the weak grade. So also: *el* gives a second grade *ol*, and a weak grade *l̥*; the last appears as Gk. *αλ* or *λα*, L. *ol* or *ul*, Teut. *ul* (rarely *lu*); A. S. *ul*, *ol*. Exx. Gk. *κλέπ-τω*, I steal, has the weak grade *κλαπ-*, as in the 2 aor. pass. *ἐ-κλάπ-ην*. The weak grade is also seen in

Gk. *καλ-ύπτω*, I hide; L. *oc-cul-tus*, hidden; Goth. *hul-undi*, a cave; A. S. *hol*, a cave, E. *hole*; allied to A. S. *hel-an*, to hide, O. Irish *cel-im*, I hide; all from Idg. root **kel*, to hide.

46. Examples of cognate words. The English verbs resembling *drink* are numerous, but there are very few that are connected with Greek and Latin. The following may serve as illustrations.

(a) Root **bhendh* (*bhondh*, *bhndh*); Teut. **bind* (*band*, *bund*). The Teut. *bind* for *bend* is because the Idg. *en* > Teut. *in*; cf. Gk. *ἐν* with E. *in*, prep.

Gk. *πενθ-ερός*, father-in-law, connexion by marriage (for **φενθ-ερός*). Also *πείσμα*, a cable, rope for tying up, contracted from **πένθ-σμα*; L. *of-fend-ix*, a band; A. S. *bind-an*, E. *bind*. Second grade: O. Norse *band*, whence E. *band*, a tie; variant form, *bond*. [The A. S. form was *bend*.] Also A. S. **band-ian*, to fix a string on a bow > A. S. *bend-an*, with *i*-mutation of *a* to *e*; E. to *bend* a bow. Weak grade: A. S. *bund-en*, bound; E. *bund-le*.

(b) Root **g(w)elbh*, (*g(w)olbh*); Teut. **kelb* (*kaltb*). Gk. *δελφ-ύς*, womb; *ἀ-δελφός*, brother (by the same mother). Second grade: Gk. *δολφ-ός*, womb; Goth. *kaltb-ō*, a calf, A. S. *cealf*, O. Merc. *calf*, E. *calf*.

(c) Root **(s)qerp*, to shear, gather fruit, allied to **sger*, to shear; Teut. **herf*. Lithuan. *kerp-ù*, I shear (cf. L. *carp-ere*, to pluck). Second grade: A. S. *hærf-est*, E. *harvest*. Weak grade: *καρπ-ός*, fruit.

(d) Root **meldh*; Teut. **meld*; (apparently) to soften. A. S. *mild-e* (Teut. type **meld-iōz*), gentle; E. *mild*. Weak grade: *μαλθ-ακός*, soft, mild; perhaps allied to L. *moll-is*, soft (from **mold-uis*, allied to Skt. *mṛd-u-*, soft). Cf. E. *mollify*, *emollient*.

(e) Root **melg*, to stroke, milk; Teut. **melk*. Gk. ἀ-μέλγ-ειν, to milk; A. S. *melc-an*, G. *melk-en*, to milk. Hence Teut. **mel-uk-*, A. S. *meol-uc*, E. *milk*, sb. Weak grade: L. *mulg-ēre*, to milk; whence E. *emulsion*.

(f) Root **selk*, to draw, drag; Teut. **selh*. Gk. ἔλκ-ειν (for **σέλκ-ειν*), to draw. Second grade: ὀλκ-άς, a ship that is towed, a heavy merchantman, whence A. S. *hulc*, E. *hulk*, a borrowed word. Weak grade: L. *sulc-us*, a furrow, A. S. *sulh*, a plough; Somersetsh. *zool*, a plough. Cf. E. *sulcated* (from L.).

(g) Root **smeld*, to melt; Teut. **smelt*. Gk. μέλδ-ειν, to melt, make liquid. Second grade: Ital. *smalt-o*, E. *smalt*, from Teut. **smalt*. Also, with mutation of *a* to *ä*, Swed. *smält-a*, causal form, to cause to melt; whence the mod. E. *smelt* is borrowed.

(h) Root **dhers*, to dare; Teut. **ders*. Skt. *dharsh-ati*, he is daring. Second grade: Goth. *ga-dars*, A. S. *dearr* (for **dars*), I dare, he dare; E. *dare*. Weak grade: Gk. θάρσ-ος, θράσ-ος, courage, θρασ-ύς, bold, daring; Goth. *ga-daurs-an* (written for **gadorsan* < **gadursan*), to be bold, to dare; A. S. *dors-te*, pt. t. I durst, I dared; E. *durs-t* (where only the *-t* is a suffix).

(i) Root **smerd*, to bite, injure; Teut. **smert*. Gk. σμερδ-νός, σμερδ-αλέος, terrible, severe; A. S. *smeort-an*, strong verb, to smart, be painful (for **smert-an*, because A. S. *e* becomes *eo* before *rt*); M. E. *smert-en*, vb., E. *smart*, vb. Supposed to be allied to L. *mord-ēre*, to bite (from the weak grade **smord*).

(k) Root **ters*, to be dry; Teut. **thers*. Gk. τέρσ-εσθαι, to become dry; L. *terr-a*, for **ters-a*, dry land; whence E. *terrace*. Weak grade: L. *torr-ēre*, for **tors-ēre*, to dry extremely, roast, whence E. *torrid*; pp. *tos-tus*, for

**tors-tus*, roasted, whence E. *toast*. A. S. *þurs-t*, *þyrs-t*, E. *thirst*, sb.; whence A. S. *þyrst-an* (for **þurst-ian*), E. *thirst*, verb.

(l) Root **werg*, to work; Teut. **werk*. Gk. *ἐργον*, a work; A. S. *weorc*, O. Merc. *werc*; E. *work*. Second grade: *ἔργον*, perfect tense; *ἔργον*, an instrument, whence E. *organ*; *ἔργον*, sacred acts, rites, whence E. *orgies*.

(m) Root **wert*, to turn; Teut. **werth*. L. *uert-ere*, to turn; whence E. *verse*, &c.; A. S. *weorð-an* (with *eo* for *e* before *rth*); E. *worth*, to become (be turned into), as in the phrase—'woe *worth* the day.' Weak grade: Teut. type **wurth-iz*, fem. sb.; whence, by Verner's Law (Primer of E. Etym., § 69) A. S. *wyrd*, fate, E. *weird*, fate, destiny; also used as an adj., with the sense of 'fatal.'

CHAPTER VIII

GRADATION: THE VERB 'BEAR'

47. The verb 'bear.' We can still use the old form *bare* as the pt. t. of *bear*, giving the three gradations *bear*, *bare*, *bor-n*; so also *tear*, *tare*, *tor-n*. To this class belong verbs in which the root-vowel *e* is followed by a single consonant, which (except very rarely) is *l*, *m*, *n*, or *r*. The chief exception is A. S. *brec-an*, to break, in which the *r* precedes the *e*. To this class belong *shear*, old pt. t. *share*, pp. *shor-n*; *steal*, pp. *stol-en*; also *come*, pt. t. *came*, pp. *come*, the form of which has suffered considerable alteration.

The three chief Idg. gradations are: prime grade, *el*, *em*, *en*, *er*; second grade, *ol*, *om*, *on*, *or*; weak grade, *l*, *m*, *n*, *r*; as in the last Chapter; see § 45.

But in this conjugation no less than four more sets of gradations are possible; these are: *ēl*, *ēm*, *ēn*, *ēr*; *ōl*, *ōm*, *ōn*, *ōr*; *lē*, *mē*, *nē*, *rē*; and *lō*, *mō*, *nō*, *rō*. Of these, the two former may be called *long* grades, or the *ē*-grade and *ō*-grade; and the two latter *lengthened* grades, because the vowel comes at the end. These extra gradations occur but sporadically, and are much less common than the short grades. Their origin is obscure; perhaps they arose from dissyllabic roots; see Brugmann, *Kurze Vergl. Grammatik*, § 212. The first of the four, however, is common and regular in Teutonic, occurring in the pt. t. pl. of the verb; as in A. S. *bêr-on*, Goth. *bēr-un*, they bore, where A. S. *ê* = Goth. *ē* = Gk. *η*. For further examples see below.

48. Examples of roots containing *em*.

(a) Idg. root **dem*, to build; Teut. **tem*, **tim*. It may here be noted that Teut. *em* commonly becomes *im*; just as *év*, prep., corresponds to E. *in*, and Gk. *γέν-υς* to E. *chin*; see § 46 (a). Gk. *δέμ-ειν*, to build; Teut. type **tem-ro-* > **tim-ro-*, building material, A. S. *tim-b-er* (with excrescent *b* between *m* and *r*), E. *timber*, sb. Second grade: Gk. *δόμ-ος*, L. *dom-us*, a house; whence E. *domicile*, *domestic*. Long *ō*-grade: Gk. *δῶμ-α*, a house.

(b) Root **g(w)em*, to go, come; Teut. **kwem*, **kwim*, to come. Here *g(w)* is used to represent the labio-velar *g*; which appears as Gk. *β*, L. *u*, Goth. *kw* (or *q*, as some write it). The present tense appears in Gk. in the weak grade *βαρ-*, with a suffix *-iō*, and **βαρ-iō* passed into *βαίν-ω*, the form in use. The L. pres. tense also (probably) appears in the weak grade *uen-*, with the same suffix; so that the form is *uen-io*, I come. The prime and weak grades are hardly distinguishable in Latin. It will also be noted that Gk. and L. have *n* instead of *m*, perhaps due to the following *i*. The Skt. base is *gam*. The Goth. *kwim-an* should correspond to an A. S. **cwim-an*; but the A. S. *cwi* before a consonant regularly becomes (1) *cwu*, by the influence of *w*, and (2) *cu*, by the loss of *w*, so that the form in use was *cum-an*, whence M. E. *com-en*, mod. E. *come*.

(c) Root **ghrem*, to make an angry noise; Teut. **grem*. Gk. *χρεμ-ίζειν*, *χρεμ-ερίζειν*, to neigh; A. S. *grim*, fierce, E. *grim*. Second grade: Gk. *χρόμ-αδος*, *χρόμ-ος*, a jarring noise; G. *gram*, angry, hostile. Weak grade: Low G. *grummen*, *grummelen*, to grumble; whence M. F. *grommeler*, E. *grumble*.

(d) Root **nem*, to take, allot; Teut. **nem*, **nim*. Gk.

ρέμ-ειν, to distribute; O. H. G. *nem-an* (G. *nehmen*), to take; A. S. *nim-an*, to take. Hence M. E. *nim-el*, ready to take or catch, E. *nim-b-le*, active, with excrescent *b* between *m* and *l*. From the same root is L. *nem-us*, a grove (allied to Gk. *νομ-ός*, a pasture); and Gk. *ρέμ-εσις*, allotment, retribution, whence E. *nemesis*. Second grade: *νομ-ός*, a pasture; whence E. *nomad*. Weak grade: A. S. pp. *num-en*, caught, taken, hence, deprived of sensation; whence E. *numb*. Perhaps also L. *em-o* (for **gm-o*), of which the original sense was 'I take.' Long *ō*-grade: *νομ-άω*, I distribute.

49. Examples of roots containing *en*. The chief gradations are: *en*, *on*, *u*.

(a) Root **gen*, to beget, produce; Teut. **ken*. Prime grade: Gk. *ἐ-γεν-όμην*, I became, I was; *γέν-ος*, race; L. *gen-us*, race. Also *γέν-εσις*, origin, source; L. *gen-ius*, inborn nature, wit. Hence many E. derivatives, as: *genealogy*; *general*, *generate*, *generous*, *gender*, *genitive*, *genial*, *genuine*, *gentile*, *genteel*. Second grade: perf. t. *γέ-γον-α*, I have become; suffix *-γον-ία*, as in *κοσμο-γον-ία*, whence E. *cosmo-gony*. Weak grade: pres. t. *γί-γν-ομαι*, I am born; L. *gi-gn-ere*, to beget; where the reduction to the weak grade is due to the reduplicating prefix. Also Goth. *kun-i*, A. S. *cynn* (with mutation of *u* to *y*), E. *kin*. Lengthened grade **gnē*: *κασι-γνή-τος*, blood-relation; *γνή-σιος*, genuine. Lengthened grade **gnō*: see the related root **gen* below. In this case we also meet with the lengthened grade **gnā*: as in *gnā-tus*, *nā-tus*, born, pp. of (*g*)*nā-scī*, to be born; hence E. *natal*, *native*, *nature*, *nation*, *cognate*.

(b) Root **gen*, to knōw; Teut. **ken*. Second grade: Goth. *kann*, I know; A. S. *cann*, E. *can*; O. Norse *kenn-a* (for **kann-ja-*), to know; E. *ken*. Weak grade: Goth.

kunn-an, to know, pp. *kun-ths*, A. S. *cū-ð* (for **cun-ð*), known; E. *un-couth*, strange, lit. 'unknown.' Lengthened grade **gnō*: as in *γί-γνω-σκω*, I know; L. (*g*)*nō-scere*, to know, (*g*)*nō-tus*, known; whence E. *notice*, *notion*, *notorious*. Lengthened grade **gnē*: Teut. **knē*: as in A. S. *cnā-wan*, E. *know*; because A. S. has *āw* for *ēw* (Brugmann, i. § 153).

(c) Root **men*, to bear in mind, remember, think. Gk. *μέν-ος*, spirit, intent; L. *me-min-ī* (for **me-men-ī*), I remember; whence E. *mentor*, *memento*, *reminiscence*. Second grade: L. *mon-ēre*, to advise; whence E. *monition*, *admonish*. Weak grade: Gk. *μαν-ία*, frenzy, whence E. *mania*; *αὐτό-μα-τος*, acting of one's own will, whence E. *automaton*. L. *men-s*, gen. *men-tis*, mind, whence E. *mental*. Goth. *ga-mun-ds*, remembrance, A. S. *ge-mynd*, memory (with mutation of *u* to *y*); E. *mind*, often used in the sense of 'memory,' as in the phrase 'to bear it in mind.' Lengthened grade: Gk. *μν-μνή-σκω* (future *μνή-σω*), I remind; *μνή-μων*, mindful; whence E. *mnemonic*.

(d) Root **sten*, **ten*, to groan, to thunder; Teut. **sten*, **then*. Gk. *στέν-ειν*, to groan, *Στέν-τωρ*, one with a loud voice; whence E. *stentorian*. Second grade: L. *ton-āre*, to thunder; whence E. *astonish*, *astound*. Weak grade: A. S. *stun-ian*, to make a din; whence E. *stun*. Also A. S. *þun-ian*, to rattle; *þun-or*, thunder, E. *thunder*. O. Norse *Thōrr* (for **þonr*), *Thor*; whence E. *Thursday*.

(e) Root **ten*, to stretch; Teut. **then*. Gk. *τείν-ω* (for **τεν-ιω*), I stretch; L. *ten-eo*, I hold, keep, orig. 'I extend.' Hence E. *tenable*, *tenacity*, *tenant*, &c.; also *extend*, *tension*, *ostensible*, &c. Weak grade: Gk. *ταν-ύ-γλωσσος*, long-tongued; L. *ten-uis*, thin, whence E. *tenuity*, *extenuate*. A. S. *þynne* (for **thun-īoz*), E. *thin*. Also Gk. *τα-ρός*, extensible.

50. Examples of roots containing *er*.

(a) Root **bher*, to bear; Teut. **ber*. Gk. *φέρω*, I bear, L. *fer-o*, I bear; A. S. *-ber-an*, to bear, E. *bear*. Also, from Gk. *φέρ-νῆ*, a dower, we have E. *paraphernalia*. Also (from L. *fero*) *confer*, *defer*, &c.; *circumference*, *fertile*. Second grade: Goth. *bar*, A. S. *bær*, I bore; Goth. *bar-n*, A. S. *bear-n*, a child, E. *bairn*. A. S. *bear-m*, lap, bosom, E. *barm*, the lap; M. E. *bar-owe*, E. *wheel-barrow*. Weak grade: L. *for-s*, chance (what is brought), event; whence L. *for-tūna*, E. *fortune* (Brugmann, i. § 500); O. Norse *bur-ðr*, E. *birth*. A. S. *byr-ðen* (for **burth-in*, with mutation of *u* to *y*); E. *burthen*, *burden*. The A. S. *ber-an* has pt. t. s. *bær*, pt. t. pl. *bæ̃r-on*, pp. *bor-en*. The Icel. *ber-a* has pt. t. s. *bar*, pt. t. pl. *bār-u*, pp. *bor-inn*. From the A. S. third grade *bæ̃r* is derived the sb. *bæ̃r*, mod. E. *bier*. From the Icel. third grade *bār* is derived Icel. *bār-a*, a billow caused by wind, mod. E. *bore*, a tidal surge in a river.

(b) Root **der*, to tear, rend; Teut. **ter*. Gk. *δέρ-ειν*, to flay; *δέρ-μα*, skin; whence *pachydermatous*, *taxidermy*. A. S. *ter-an*, to tear, E. *tear*, vb.

(c) Root **gher*, to desire, long for; Teut. **ger*. O. H. G. *ger-ōn*, to desire, G. *be-gehr-en*, to desire; A. S. *geor-n* (for **gern*), desirous; whence *gier-nan* (for **georn-ian*, with mutation of *eo* to *ie*), to yearn, E. *yearn*. Weak grade: L. *hor-ior*, I urge; *hor-tārī*, to encourage; whence E. *exhort*, *hortatory*. Also the Gk. *χαίρειν* (for **χάπ-ρειν*), to rejoice; *χαρ-ά*, joy; *χάπ-ις*, favour, whence E. *eucharist*.

(d) Root **ker*, to top, surmount(?); Teut. **her*. Gk. *κέρας*, a horn; L. *cer-uus*, a (horned) stag; *cer-ebrum*, brain (cf. Skt. *çiras*, the head); A. S. *her-ut*, *heor-ut*, a hart (lit. 'horned'). Weak grade: L. *cor-nu*, a horn; A. S. *hor-n*, E. *horn*.

(e) Root **mer*, to die. Weak grade: L. *mor-ior*, I die, whence E. *murrain*; *mor-s*, death (gen. *mor-tis*), whence E. *mortal*. Also Gk. *μαρ-αίνειν*, to quench, put out; A.S. *mor-ðor*, E. *murther*; Anglo-French *mordre*, E. *murder*. Also *βρο-τός*, for **μρο-τός*, mortal; whence E. *ambrosia*. Also *μάρ-va-μαί*, I fight.

(f) Root **per*, to go through, pass through, travel; Teut. **fer*. Gk. *πέρω* (for **περ-ῖω*), I pierce (fut. *περ-ῶ*); *περ-άω*, I pass over; *πέπα* (for **πέρ-ῖα*), an attempt, whence E. *pirate*; L. *ex-per-ior*, I pass through, whence E. *experiment*, *experience*. Also Icel. *fjörðr* (for **fer-ðu-*), an estuary, bay that can be crossed (allied to E. *ford*); whence E. *firth*, *frith*. Second grade: *πορ-εύομαι*, I travel; *πόρ-ος*, a passage, a pore, whence E. *pore*, sb.; A.S. *far-an*, to travel, fare, E. *fare*, vb.; whence A.S. *fer-ian* (with mutation of *a* to *e*), to carry across, ferry over, E. *ferry*, vb. Weak grade: L. *por-ta*, a gate, *por-tus*, a harbour (whence E. *port*, gate, harbour, *portal*, *portcullis*); A.S. *for-d*, a ford, passage, E. *ford*. Third or long grade: **pēr* = Goth. **fēr* = A.S. **fêr*: Goth. *fēr-ja*, a spy (one who watches one's course); A.S. *fêr*, a sudden peril, danger (on a journey), E. *fear*; cf. G. *gefahr*, danger.

(g) Root **spher*, **sper*, to struggle, kick; Teut. **sper*. L. *sper-nere*, to spurn, despise. Second grade: Low G. *sparre*, sb., a struggling; whence M.F. *esparer*, to kick with the heels; whence E. *spar*, vb., orig. said of fighting cocks. Weak grade: A.S. *spor-nan*, *spur-nan*, to spurn, kick against, E. *spurn*; Gk. *σπαίρειν* (for **σπάρ-ῖεν*), to struggle convulsively; Skt. *sphur*, to throb, struggle. Also A.S. *spur-a*, *spor-a*, a spur, E. *spur*, sb.; Mid. Du. *spor*, Du. *spoor*, a foot-track, trail, whence E. *spoor*.

(h) Root **swer*, to murmur, hum, speak. Second grade:

Goth. *swar-an*, to swear; A. S. *swer-ian*, to swear (with mutation of *a* to *e*), E. *swear* (orig. 'to speak'); A. S. *swear-m*, a cluster of humming bees, E. *swarm*; A. S. *and-swar-u*, a speaking in reply, reply, E. *an-swer*. Allied to Skt. *svar-a(s)*, sound, voice; L. *su-sur-rus*, a murmur, whisper.

(i) Root **ter*, to pass through, penetrate; Teut. **ther*. Gk. *τέρω* (for **τερ-ῖω*), I rub or wear away; *τέρ-ετρον*, a borer; L. *ter-o*, I rub, bore; Gk. *τέρ-μα*, a limit; L. *terminus*, a limit; hence E. *trite*, *term*, *terminus*, *teredo*. Weak grade: A. S. *þur-h*, through, E. *thorough*, *through*; E. *thru-m*, end of a thread. From the second grade comes E. *turn*, from L. *tornus*, a lathe; from Gk. *τόρ-vos*.

(k) Root **wer*, to speak, say. Gk. *εἶπω* (for **φέρ-ῖω*), I say. Weak grade: A. S. *wr-d*, E. *word*; cf. L. *verbum*, a word, whence E. *verb*. Lengthened grade: **wrē*: Gk. *ρή-τωρ* (for **φρή-τωρ*), a speaker, orator; whence E. *rhetoric*, *rhetorician*.

(l) Root **wer*, to be wary, observe. Second grade: **wor*: Gk. *ὄρ-άω* (for *φop-άω*), I see, observe; A. S. *wær*, wary, observant; whence E. *aware*, *wary*, *beware*. A. S. *wear-d* (for **war-d*), a guard, whence E. *ward*.

(m) Root **wer*, to cover, protect. Gk. *ἐρ-υσθαι* (for **φέρ-υσθαι*), to protect. Second grade: Goth. *war-jan*, to protect, A. S. *wer-ian* (with mutation of *a* to *e*), to protect; A. S. *wer*, a dam, E. *weir*.

51. Examples of roots containing el.

(a) Root **ghel*, to be green or yellow; Teut. **gel*. L. *hel-uus*, light yellow; *fel*, gall; A. S. *geolu* (for **gel-u*), E. *yellow*; A. S. *geol-eca*, *geol-ca*, E. *yolk*, i. e. yellow part. Second grade: *χόλ-os*, bile, *χολ-ή*, gall, whence E. *choler*,

choleric ; O. Merc. *gal-la*, bile, E. *gall*. Weak grade : A. S. *gol-d*, E. *gold*.

(b) Root **kel*, to hide ; Teut. **hel*. O. Irish *cel-im*, I hide ; W. *cel-u*, to hide ; L. *cel-la*, a hut, whence E. *cell*, *cellar* ; A. S. *hel-an*, to hide ; *hel-m*, a covering, E. *helm*, dimin. *helm-et*. Second grade : A. S. *heall*, *heal* (for **hal-lā* < **hal-nā*, f.), a shelter, E. *hall* ; also Goth. *hal-ja*, A. S. *hel-le* (with mutation of *a* to *e*), Hades, E. *hell*. Weak grade : L. *oc-cul-ere*, to hide, whence E. *occult* ; Gk. *καλ-ιά*, a hut ; *καλ-ύπτειν*, to cover, whence E. *eucalyptus* ; Goth. *hul-jan*, to cover, *hul-undi*, a cave, A. S. *hol*, a cave, E. *hole* ; also A. S. *hol*, hollow, whence A. S. *hol-h*, hollow, E. *hollow*, adj. Long grade : L. *cēl-āre*, to hide, whence E. *conceal*.

(c) Root **mel*, to grind. O. Irish *mel-im*, I grind ; A. S. *mel-u*, E. *meal*. Also L. *mol-ere*, to grind ; *mol-a*, a mill, whence E. *molar* and *mill*. Brugmann explains *mol-ere* as a later form of **mel-ere*, as shown by the O. Irish form ; the *-ol-* for *-el-* is well illustrated by the L. *olīua*, an olive-tree, from Gk. *ἐλαίφα*.

(d) Root **qel*, to raise up ; Teut. **hel*. L. *ex-cel-lere*, to surpass, whence E. *excellent* ; *cel-sus*, high. Second grade : *κολ-ωνός*, a hill ; L. *col-lis*, a hill, for **col-nis*, cf. Lith. *kalnas*, a hill. Weak grade : L. *cul-men*, a hill-top, whence E. *culminate* ; A. S. *hol-m*, an islet, E. *holm* ; A. S. *hyll* (with mutation), E. *hill*.

CHAPTER IX

GRADATION: THE VERB 'METE'

52. The verb 'mete.' To this class belong nearly all verbs in which the root-vowel was originally *e*, if followed by a simple consonant that is neither a liquid nor a nasal. It is remarkable that no example is left in modern English to represent the real characteristics of this conjugation. The A. S. *met-an*, to mete, had the pt. t. *mæt* and the pp. *meten*. Had this been accurately preserved, but with the usual phonetic changes, we should now be using the verb *to meat*, with the pt. t. *mat*, and the pp. *meaten*; since the A. S. *e* at the end of an open syllable became a long open *e*, such as was written *ea* in Tudor English. In fact, we have the verb *to eat*, with the pp. *eaten*, regularly; but the pt. t. should have been *at* or *et*. We now use the latter, but it is spelt *ate*. The pronunciation *et* really goes back to the A. S. *æt*, as in *æt-on*, we ate, which exhibits a 'long' grade. This long grade formerly appeared, in this particular verb *only*, in the first and third person *singular* as well as in the plural; so that the A. S. forms for 'I ate' or 'he ate' were both *æt* and *æt*, and the M. E. forms were both *at* and *eet*. The vowel in *eet* was shortened before *t*, like the *o* in *hot*, M. E. *hoot*, A. S. *hāt*. Other verbs that once belonged to this conjugation, besides *mete* and *eat*, are *beget*, *give*, *forget*, *fret*, *get*, *knead*, *bequeath*, *speak*, *stick*, *tread*, *weave*, *weigh*, *wreak*, *bid*, *lie*, *sit*, and *see*. We can trace the short *e* of the infinitive in *forget*, *fret*, *get*, *tread*, and (lengthened)

in *mete*, *eat*, *knead*, *bequeath*, *speak*, *weave*, *wreak*. Also, the short *a* of the past tense in *begat*, *forgat*, *gat* (all in the Bible, A. V.), *bad* (now used in a different sense)¹, *sat*, and (lengthened) in *gave*, *spake*, *lay*. But the pp. *forgēten* has become *forgotten*; *gēten* and *begēten* are now *gotten* and *begotten*; *spēken* is now *spoken*; *trēden* is now *trodden*; *wēven* is now *woven*; all due to confusion with verbs like *bear*, pp. *born*, *steal*, pp. *stolen*, in which a liquid followed the radical *e* of the infinitive.

53. Similar gradations occur in Greek. The A. S. *e* = Gk. *ε*; and the A. S. *æ*, Goth. *a*, of the past tense = Gk. *ο*. A good example is seen in Gk. στρέφ-ω, pt. t. ἔ-στροφ-α, 2 aor. pass. ἐ-στράφ-ην. It frequently happens that the characteristic *ο* occurs in derivatives, and hence the constant interchange between *ε* and *ο* which is so marked a feature of the Greek language. Thus from λέγ-ω we have λόγ-ος; from νέμ-ω, νόμ-ος; from σκέπ-τομαι, σκοπ-ός; from στέλλ-ω, στολ-ή; from στρέφ-ω, στροφ-ή; &c. Several of these relations are found in English in words borrowed from Greek. Thus *bel-ennite* is allied to *para-bol-a*; *Gen-esis*, to *cosmo-gon-y*; *en-erg-y*, to *org-an*; *hec-tic*, to *ep-och*; *ec-lec-tic*, to *log-ic*; *nem-esis*, to *nom-ad*; *scep-tic*, to *scope*; *Strep-h-on*, to *stroph-e*; *Christo-pher*, to *phos-phor-us*; *phleg-matic*, to *phlox*.

The vowel of the weak grade may disappear; as in πέτ-ομαι, I fly; second grade, ποτ-ή, flight; weak grade, ἐ-πτ-όμην, πτ-έσθαι, πτ-ερόν, a wing, and the derived verb πί-πτ-ω, I fall.

54. Examples of roots containing simple *e*.

(a) Root **ed*, to eat; Teut. **et*. Gk. ἔδ-ειν, to eat;

¹ The A. S. *biddan*, pt. t. *bæd*, meant 'to pray'; the sense of 'command' was due to confusion with *bēdan*, pt. t. *bēad*.

L. *ed-ere*; A. S. *et-an*, E. *eat*. Hence Goth. *fra-itan*, to devour, contracted in A. S. to *fr-et-an*, to devour; E. *fret*, said of a moth, &c.

(b) Root **es*, to be. Gk. *ἐσ-τί*, he is; L. *es-t*, he is, *es-se*, to be; A. S. *is*, E. *is*. Gk. **ἐσ-μί*, *εἰ-μί*, I am; A. S. *eo-m*, O. Northumbrian *am*, E. *am*. Gk. *ἐσ-σί*, *εἰς*, *εἴ*, thou art; L. *ēs*; O. Northumb. *ear-ð*, A. S. *ear-t*, E. *art*. Gk. *ἐσ-μέν*, we are, *εἰ-σί*, they are; O. Northumb. *ar-on*, E. *are*; O. Norse *er-u* (for **es-u*), they are. Weak grade: *-s*; as in A. S. *sōð* (for **-s-onth-*), lit. 'being,' and hence 'truth,' E. *sooth*; L. *præ-s-ent-em*, acc. of *præsens*, whence E. *present*, and *ab-s-ent-em*, acc. of *absens*, whence E. *absent*.

(c) Root **ghed*, **ghend*, to seize, to get; Teut. **get*. Gk. **χεῖνδ-*, as in *χεῖ-σσομαι* (for **χέινδ-σσομαι*), fut. of *χαρδ-άω*, I hold, contain; L. *-hend-ere*, as in *pre-hend-ere*, to seize, hold, whence E. *apprehend*, *prehensile*; L. *-hed-a*, as in *prae-da* (for **prai-hed-a*), booty, prey, whence E. *prey*; L. *hed-era*, ivy (that clings), O. Norse *get-a*, to get, E. *get*; A. S. *for-giet-an*, *for-git-an*, E. *forget*; A. S. *be-giet-an*, *be-git-an*, E. *beget*. In A. S. *giet-an*, the *gi-* was written for *y* or *ï*; so that the real vowel is *e* (sometimes *i*).

(d) Root **legħ*, to lie, lie down; Teut. **leg*. Gk. *λέχ-ος*, a bed; L. *lec-tus* (for **legħ-tus*, **leg-tus*), a bed; A. S. *licgan* = *liggan* (for **leg-ġan*), to lie down, E. *lie*; A. S. *leg-er*, a couch, E. *lair* (of an animal); Dutch *leg-er*, a couch, a camp, whence E. *leaguer*, *beleaguer*. Second grade: O. Norse *lag*, a stratum, *lög*, law (with *u*-mutation of *a* to *ö*), whence A. S. *lag-u*, E. *law* (i. e. that which rests or is laid down). Long grade: **lēgh*: as in O. Norse *lāg-um*, we lay; *lāg-r*, lying low, whence E. *low*.

(e) Root **med*, to consider, attend to; Teut. **met*. Gk. *μέδ-ομαι*, I consider, plan, devise; L. *med-itor*, I con-

sider, whence E. *meditate*; A. S. *met-an*, to measure, measure out, plan, E. *mete*; Gk. μέδ-ιμος, a measure for corn. Second grade: L. *mod-us*, measure, moderation; *mod-ius*, a bushel; whence E. *mode*, *model*, *moderate*, *modify*. Long grade: μήδ-ομαι, I devise.

(f) Root **pet*, to fly, hasten towards, seek; Teut. **feth*. Gk. πέρ-ομαι, I fly; L. *pet-ere*, to seek, *im-pet-us*, an attack; whence *petition*, *competent*, *impetus*, &c. A. S. *fēð-er*, E. *feather*. Also L. *pen-na* (for **pet-sna*), a feather; whence E. *pen*. Weak grade: Gk. πί-πτ-ω, I fall, πτ-ερόν, a wing; whence E. *asymptote*, *symptom*, *pterodactyle*, *coleoptera*. Second grade: Gk. ποτ-ή, flight.

(g) Root **pet*, to spread out, lie flat; Teut. **feth*. Gk. πετ-άννυμι, I spread out; πέτ-αλον, flat plate, leaf, whence E. *petal*. Second grade: A. S. *fæð-m*, O. Norse *fæð-mr*, the space reached by the extended arms, E. *fath-om*. Weak grade: Gk. πατ-άνη, a flat dish, whence L. *patena*, *patina*, E. *paten*. Also (apparently), L. *pat-ulus*, spreading; *pat-ēre*, to lie open, whence E. *patent*.

(h) Root **plek*, to plait, weave, fold together; Teut. **fleh*. Gk. πλέκ-ειν, to plait; L. *plec-tere*, to plait, whence E. *plait*. Second grade: πλοκ-ή, a plait; Goth. *flah-ta*, a plaiting of hair; A. S. *fleaƿ*, E. *flax*, with *x* for *hs*; cf. O. H. G. *flah-s*, G. *flachs*, flax.

(i) Root **reg*, to stretch, reach, rule; Teut. **rek*. Gk. ῥέγ-ειν, to stretch; L. *reg-ere*, to rule, whence E. *regent*, &c.; *rec-tus* (for **reg-tus*), right; A. S. *rih-t* (for **reh-t*), E. *right*, G. *rech-t*. Second grade: M. Du. *rack-en*, to stretch, to rack, to torture, whence E. *rack*; Low G. *rakk*, a shelf; cf. E. *plate-rack*; A. S. *rac-a*, a rake, E. *rake*.

(k) Root **sed*, to sit; Teut. **set*. Gk. ἕζομαι (for **σέδ-ιομαι*), I sit; L. *sed-co*, I sit; whence (from Greek) E.

cathedral, chair, chaise, polyhedron; and (from Latin) *sedentary, see* (of a bishop), *siege, assiduous, assess, &c.* Also A. S. *sittan* (for **set-ian*), to sit. Second grade: A. S. *settan*, weak verb (for **sat-ian*), E. *set*. Weak grade: Idg. **ni-sd-os*, a place to sit down in; whence Skt. *niḍ-as*, a nest (cf. Skt. *ni-sad*, to sit down), L. *nīdus* (with loss of *z < s*), A. S. *ne-st*, E. *nest* (cf. A. S. *ni-ðer*, E. *nether*, a comparative form with suffix *-ðer* from *ni-*, i. e. 'down'). Long grade: *sēd*: Icel. *sāt*, pl. stem of the past tense; whence (with mutation of *ā* to *ē*) Icel. *sēt-i*, a seat, E. *seat*. Long grade: *sōd*: Lithuan. *sōd-is*, A. S. *sōt*, 'that which is deposited,' soot; E. *soot*.

(l) Root **seq*, to cut; Teut. **seχ*, **seg*. L. *sec-āre*, to cut; whence E. *section, segment, scion, &c.* Also A. S. *sī-ðe*, Early A. S. *sig-ði*, Teut. type **seχ-ði* (with mutation of *e* to *i*); E. *scythe*, a bad spelling of M. E. *siſthe*. Second grade: A. S. *sag-a*, a saw (for cutting), E. *saw*; A. S. *secg*, f., Teut. type **sag-iā*, **sax-iā*, sword-grass, E. *sedge*.

(m) Root **steg*, **teg* (with 'middle' guttural); Teut. **thek*. Gk. *στέγ-ειν*, to cover; *στέγ-os, τέγ-os*, a roof; L. *teg-ere*, to cover, whence E. *protect, integument*; *teg-ula*, a tile, whence A. S. *tigol*, E. *tile*. Second grade: L. *tog-a*, a garment, E. *toga*; A. S. *þæc*, thatch, a roof, E. *thatch*; Du. *dak*, a roof, whence *dekken* (for **þak-ian*), to cover, E. *deck* (borrowed from Dutch). See § 18.

(n) Root **tek*, to beget; Teut. **thek*. Gk. *τεκ-ειν*, 2 aor. infin. of *τί-κτ-ειν*, transposed form of **τί-τκ-ειν*, to bear, with the weak grade *-τκ-*; *τέκ-vov*, a child. A. S. *þeg-en, þeg-n*, E. *thane*; orig. 'a servant,' 'child'; answering (by Verner's law) to a Teut. type **theg-nōz*, masc. = Idg. **tek-nōs*, in which the latter syllable received the chief stress. The accent upon the *ε* in *τέκ-vov* was one of

pitch, which was not necessarily always upon the more strongly stressed syllable; but this is a point of much difficulty. Second grade: *τοκ-εύς*, a father; *τέ-τοκ-α*, perf. of *τίκτειν*.

(o) Root **webh*, to weave; Teut. **weð*. A. S. *wef-an*, G. *web-en*, to weave; E. *weave*. Second grade: A. S. *webb*, n., Teut. type **wab-jom* (with mutation of *a* to *e*); E. *web*. Weak grade: Gk. *ὑφ-αίνειν*, to weave, *ὑφ-ή*, a web.

(p) Root **wed*, to be wet; Teut. **wet*. The prime grade does not appear; but the other gradations are: (second) *wod*; (weak) *wad*, *ud*; (long) *wēd*; all of which occur. Second grade: Russ. *vod-a*, water, *vod-ka*, brandy, spirit; Goth. *wat-ō*, water; A. S. *wat-er*, G. *wass-er*, E. *water*. Also (with inserted *n*) Lith. *wand-ū*, water. Weak grade: Skt. *ud-an-*, water; Gk. *ὑδ-ωρ*, water, *ὑδ-ρα*, a water-serpent, whence E. *hydra*; *ὑδ-ρο-*, in compounds, whence E. *hyd-ro-gen*, *d-ro-psy*. A. S. *ot-or*, an otter, 'water-animal,' E. *otter*. Also (with inserted *n*), Skt. *und*, to moisten; L. *und-a*, a wave, whence E. *undulate*, *abound*, *redound*, *surround*. Long grade: **wēd*: A. S. *wāt*, wet, whence E. *wet*, the vowel being shortened before the voiceless final *t*; also *wāt-an*, verb, to *wet*.

(q) Root **wedh*, to redeem a pledge, to pledge. Gk. *ἄ-εθλον* (for **ἄ-φεθ-λον*), the prize of a contest, cf. *ἄ-εθλος*, *ἄθλος*, a contest, whence E. *athletic*. Second grade: Goth. *wad-i*, a pledge, A. S. *wedd* (for **wad-jom*), with mutation of *a* to *e*, whence E. *wed*, verb, and *wedlock*. Cf. also E. *wages*, *wager*, *engage*, ultimately from a Teutonic source; and L. *uas* (gen. *uad-is*), a pledge.

(r) Root **weg*, to be active or strong; Teut. **wek*. L. *ueg-ēre*, to arouse. Second grade: A. S. *wac-an*, to come to life, *wac-ian*, to watch; E. *wake*, *watch*.

(s) Root **wegh*, to carry, convey, remove; Teut. **weg*. L. *ueh-ere*, to carry, whence E. *vehicle*; *uexāre*, to jolt (in carrying), to molest, whence E. *vex*; *uē-lum* (for **ueh-slum*), a sail (propeller), whence E. *veil*; *uē-na*, a vein(duct), whence E. *vein*. A. S. *weg-an*, to carry, bear, E. *weigh*; A. S. *weg*, E. *way*. Second grade: A. S. *wæg*, pt. t. of *weg-an*; A. S. *wæg-n*, a wain, E. *wain*; M. Dutch *wag-en*, a wain, whence E. *waggon*; A. S. *wecg* (for **wag-ǵoz*), with mutation of *a* to *e*, E. *wedge*, lit. 'shaker' or 'mover,' from its splitting of trees; M. Swed. *vag-ga* (for **wagga*), with which cf. E. *wag* (a Scand. form). Also Gk. *ὄχος* (for **fóχ-os*), a chariot, vehicle.

(t) Root **wes*, to dwell, remain, be. Gk. *ἑσ-ρία* (for *ῑεσ-ρία*), a dwelling, a hearth; L. *Ves-ta*, goddess of the household; Skt. *vas*, to dwell; A. S. *wes-an*, to be; A. S. *wes hāl*, O. Low G. and A. F. *wes heil*, 'be whole,' E. *wassail*. Second grade: A. S. *wæs*, E. *was*. Weak grade: Gk. *ἄσ-τυ* (for **fάσ-τυ*), a city, town. Long grade: A. S. *wêr-on* (for **wêz-on* < **wês-on*), E. *were*.

(u) Root. **wes*, to clothe. Skt. *vas*, to put on clothes; Gk. *ἔν-νυμι* (for **ῑέσ-νυμι*), I clothe; *ἔσ-θος* (for *ῑέσ-θος*), clothing; L. *ues-tis*, clothing, whence E. *vest*, *invest*, *divest*, *vestment*. Second grade: Goth. *was-jan*, to clothe; A. S. *wer-ian* (with mutation of *a* to *e*, and *r* for *z* < *s*), to wear clothes, E. *wear*.

(w) Root **yes*, to ferment. Gk. *ζέ-ειν* (for **ῑέσ-ειν*, cf. perf. mid. *ῑ-ῑέσ-μαι*), to seethe, *ῑέσ-μα*, a decoction, *ῑέσ-ρός*, sodden; *ῑκ-ῑέ-μα*, a pustule, whence E. *eczema*. A. S. *gist* (for **gest*; cf. Du. *gist*, *gest*, yeast; O. H. G. *jest*, G. *gisch*), yeast; M. E. *yest*; mod. E. *yeast*.

CHAPTER X

GRADATION: THE VERB 'SHAKE'

55. The verb 'shake.' We have now discussed the various roots that contain *e*, which have been divided into five sets, viz. (1) roots containing *ei*; (2) those that contain *eu*; (3) those that contain *e* followed by two consonants; (4) those that contain simple *em*, *en*, *er*, *el*; and (5) those that contain simple *e*.

This exhausts the list of roots in which *e* appears in the prime grade.

We have now to consider verbs like the A. S. *scac-an*, *sceac-an*, to shake, pt. t. *scōc*, pp. *scac-en*, *sceac-en*; mod. E. *shake*, *shook*, *shaken*, in which the characteristic vowel of the prime grade is *a*. Other verbs belonging to this conjugation are *forsake* (*forsook*, *forsaken*), *take* (*took*, *taken*); also *swear* (*swore*, *sworn*), *slay* (*slew*, *slain*), *draw* (*drew*, *drawn*). In others, only the pt. t. has been preserved; as *awake*, *awoke*; *heave*, *hove* (also *heaved*); *stand*, *stood*; *wake*, *woke*. Also *gnaw*, of which the pt. t. *gnew* occurs in provincial E. (Yks. and Suff.). In others again, we find examples of the old past participles; as in *gnaw*, *gnawn* (Southey, Browning); *grave*, *graven*; *lade*, *laden*; *shave*, *shaven*; *shape*, *shapen* (Ps. li. 5); *wax*, *waxen* (A. V.); *wash*, *washen* (cf. *unwashen*, A. V.). The following weak verbs once belonged to this conjugation: *ache*, *bake*, *laugh*, *scathe*, *step*, *wade*. As to *bake* see § 58 (*e*).

56. We have now to settle the corresponding gradations in Greek and Latin. But it may first of all be said that the *a* in the pp. *shaken* is not necessarily the

same as the *a* in *shake*. The latter is the vowel of the root, but the former must represent the weak grade. This is clearly seen in the verb *to swear*, where the infinitive is A. S. *swerian* (for **swar-ian*, with mutation of *a* to *e*, due to the presence of *i*), but the pp. is A. S. *swor-en*, in which *or* is the regular representative of Idg. *ɣ*, as in the case of *bor-en*, the pp. of *ber-an*, to bear. In order to avoid ambiguity, the vowel of the pp. will not be here considered. It will then suffice to explain the *ō* of the pt. t., as in *scōc*, *sceōc*, I shook, *swōr*, I swore. The value of this *ō* is easily determined by help of the O. Norse verb *aka*, to drive, which corresponds to Gk. *ἄγ-ειν*, L. *ag-ere*, to drive, by Grimm's law. The pt. t. is *ōk*, with a long vowel. But usually, Icel. and A. S. *ō* = Gk. *η* = L. *ā*; well illustrated by the example of A. S. *mōdor* = L. *māter* = Gk. *μήτηρ*, 'mother.' Hence the Latin gradations corresponding to A. S. *a*, *ō* are *a*, *ā*; and the Gk. gradations are *α*, *η*.

It may be added that another long grade appears in Gk. as *-ωγ-*, with the vowel *ω*; as in *ἄγ-ωγ-ός*, 'leading,' whence E. *demagogue*; and *ἄγ-ωγ-ή*, 'a leading,' whence E. *synagogue*.

57. Examples of roots containing *a*.

(a) Root **ag*. A. S. *ac-an*, pt. t. *ōc*, E. *ache*, is evidently the same verb as O. Norse *ak-a*, pt. t. *ōk*, to drive, to press one hard. The E. verb has obtained a specialized sense. The verb *ache* is now weak, but the pt. t. pl. *oken*, ached, occurs in *Piers the Plowman* (A. D. 1377). As explained above, A. S. *ac-an*, O. Norse *ak-a* is the same word as L. *ag-ere*, Gk. *ἄγ-ειν*, to drive; and the pt. t. *ōc* corresponds to the *-āg-* in L. *amb-āg-es* and the *ηγ-* in the perf. pass. *ἤγ-μαι*.

As regards the sense, compare Gk. ἀγ-ωνία, E. *ag-ony*, from the same root.

The spelling *ache* is due to ignorance. In connexion with A. S. *ac-an*, M. Eng. *aken* (Chaucer), Tudor Eng. *ake*, verb (Shakespeare (1623), K. John, iv. i. 41), there was an obsolete sb. denoting 'pain,' viz. A. S. *æc-e*, M. Eng. *ach-e* (Chaucer), the pl. of which, viz. *ach-es* (aa'chez), was disyllabic even in Tudor English, as in Shak. Tempest, i. 2. 370. This word, which would now be pronounced *aitch*, like the name of the letter *h*, is no longer in use; for the word *ake* is now a sb. as well as a verb. We have retained the spelling of the obsolete substantive only, though our pronunciation recognizes only the verb! One reason for this is that Dr. Johnson, in his Dictionary, supposed *ache* (i. e. *ake*) to be derived from the Gk. ἄχος! But ἄχος is cognate with Icel. *agí*, which is E. *awe*, despite any difference in sense. See the whole account in the New English Dictionary.

From the same root we have also Gk. ἀγ-ρός, 'a field,' 'pasture to which cattle were driven,' L. *ag-er*, A. S. *æc-er*, E. *acre*. Also *acorn*, error for *aker-n*, 'a fruit of the field,' but now used of the fruit of the *oak*, a tree with which it has no etymological connexion.

(b) Root **klak*, to make a clucking noise, to laugh; Teut. **hlah*. Of imitative origin. O. H. G. *hlah-h-an*, Goth. *hlah-jan*, to laugh, A. S. *hliah-h-an*, O. Merc. *hlæhh-an* (for **hlah-ian*), to laugh; A. S. pt. t. *hlōh*. Also A. S. *hleah-tor*, E. *laughter*. Third grade: Gk. κλώσ-σειν (for **κλώκ-ζειν*), to cluck.

(c) Root **qap*, to lay hold of, seize, take; Teut. **haf*. L. *cap-ere*, to seize; Goth. *haf-jan*, to carry, bear; A. S. *hebban* (for **haf-ian*, with mutation of *a* to *e*, and the

usual change from *fi* to *bb*), to carry, lift, heave; E. *heave*. Also A. S. *haf-oc*, a hawk, E. *hawk*, lit. 'seizer,' like Late L. *cap-us*, a hawk, from *cap-io*. Also L. *cap-ulus*, a handle; E. *haf-t*. The corresponding second grade in Greek is *κηπ-, but there is also a third grade κωπ-, whence Gk. κώπ-η, a handle, by which to catch hold of or to lift a thing.

(d) Root **skap*, to dig, scrape, shave; Teut. **skaf*. There is a related root **sqab*; Teut. **skap*. (1) Gk. σκάπ-τειν, to dig, σκαπ-άνη, a spade; κάπ-ετος (for *σκάπ-ετος), a ditch, trench, place scraped out; Goth. *skab-an*, A. S. *scaf-an*, to shave; E. *shave*. (2) L. *scab-ere*, to scrape, Lith. *skab-ùs*, cutting, sharp, Goth. *ga-skap-jan*, to shape; A. S. *sceap*, a shape, *scieppan* (from **scap-jan*), to shape, pt. t. *scōp*. Cf. A. S. *scōp*, sb., one who creates or shapes, a poet (like Gk. ποιητής from ποιεῖν).

(e) Root **wadh*, to walk slowly, to wade; Teut. **wad*. A. S. *wad-an*, to wade; L. *wad-um* (for **wadh-um*), a ford. Second grade: A. S. *wōd*, pt. t. of *wadan*; L. *uād-ere* (for **uādh-ere*), to wade, to go.

58. Relationship by gradation of *a*. Now that the above relationships have been established, they may be extended to cases in which the exact sense of the root is not certain, or in which the form of it does not clearly appear in English. That is, we may consider syllables containing the A. S. *a* (or *æ*, or *ea*, or even A. S. *ō*) accompanied by certain consonants, as being related to syllables containing L. *a*, Gk. *a* (or else L. *ā*, Gk. *η* or *ω*) and equivalent consonants; provided that there is also a connexion in sense. The following are examples.

(a) Root **ak*, to be sharp; Teut. **ah* (*ag*); the substitution of *ag* for *ah* being due to Verner's Law. Gk. ἄκ-ρος,

pointed, whence E. *acrobat*; ἀκ-μῆ, edge, whence E. *acme*; L. *ac-us*, needle, whence E. *aglet*; *ac-uere*, to sharpen, whence E. *acute*; *ac-iēs*, an edge, cognate with A. S. *ecg* for **ag-iā* (with mutation of *a* to *e*, and the usual reduction of *gi* to A. S. *gg*, written *cg*), E. *edge*; cf. also O. Norse *egg-ja*, to goad on, whence E. *to egg on*. Also L. *ac-us*, lit. 'ear' or spike of corn, husk of corn; Goth. *ah-s*, G. *āh-re*, ear of corn, O. Northumb. *eh-er*, ear, A. S. *ēar* (a contracted form), E. *ear* (of corn); also A. S. *æg-nan*, pl., E. *awns*, pl. The long *ā* appears in L. *āc-er*, sharp, whence E. *eager*. The Gk. ἀκ-ωκ-ή, a point, contains both *ak*- and *-ωk*-, just as Gk. ἀγ-ωγ-ή contains both *ag*- and *-ωγ*-. Cf. also Gk. ἀκ-ακ-ία, the thorny acacia, whence E. *acacia*.

(b) Root **pat*, to feed: Teut. **fath* (*fad*). Gk. παρ-έομαι, I feed upon, eat. Second grade: Goth. *fōd-jan*, A. S. *fēd-an* (for **fōd-ian*, with the usual mutation of *ō* to *ē*), to feed; E. *feed*. Also A. S. *fōd-a*, E. *food*. Probably connected with the root **pā*, to feed, whence L. *pā-nis*, bread, *pā-bulum*, food, *pā-scere* (pt. t. *pā-uī*), to feed.

(c) The A. S. *mæg*, Goth. *mag*, I may, am able to do, A. S. *mæg-en*, strength, E. *main* (as in the phr. 'might and main'), and E. *might*, A. S. *mih-t*, O. Merc. *mæh-t*, Goth. *mah-ts*, all contain a base *mag*-, significant of 'power' or 'strength,' which corresponds (in the second grade) to Gk. μηχαν-αρή, a means for exerting power, whence E. *machine*. (The *i* in A. S. *mih-t* is due to 'palatal mutation,' whereby A. S. *a* > *æ* > *e* > *i* before *ht*. So also in L. *noct-em*, G. *nacht*, A. S. **naht*, *næht*, *neht*, *niht*, E. *night*.)

(d) Since A. S. *t* answers to Skt. *d*, it seems reasonable to connect E. *rat*, A. S. *ræt*, with Skt. *rad*, to gnaw. And it is obvious that Skt. *rad* is allied to L. *rād-ere*,

to scrape, and to L. *rōd-ere*, to gnaw; with *ā* and *ō* respectively.

(e) Roots containing the vowel *o*. It should be added that there are also traces of an *o*-series, which admits of lengthening to *ō*. This appears in the root **od*, to smell; as in Gk. *ὀδ-μή*, L. *od-or*. The second grade appears as *ωδ* in *ὄδ-ωδ-α*, perfect tense of *ὀζω* (< **ōδ-ίω*), and in *εὐ-ὠδ-ης*, sweet-smelling. As Gk. *o* answers to Teut. *a*, and Gk. *ω* to Teut. *ō*, an E. verb belonging to this series will be indistinguishable from the ordinary verbs of the *shake*-conjugation above. There appears to be one example of this. Root **bhog* (**bhōg*); Teut. **bak* (**bōk*). A. S. *bac-an*, to bake. Second grade: A. S. pt. t. *bōc*; Gk. *φάγ-ειν*, to roast.

CHAPTER XI

REDUPLICATING VERBS

59. Reduplication. The seventh conjugation of Gothic verbs is that in which the past tense is formed by reduplication, as in the case of L. *te-tig-ī* from *tangere*, or Gk. *πέ-ποιθ-α* from *πείθ-ειν*. In these the principle of gradation plays a subordinate part. There is a weak grade, appearing mostly in a few derivatives, seldom in the verbs themselves. See § 63 (e). The chief characteristic of the allied A. S. strong verbs is that the vowel of the root is invariably *long*; either it is an *a* that is long by position and regularly 'broken' into the diphthong *ea* before *ld*, *ll*, or *lc*; or it is *ā*, *æ*, *ō*, or *ē*; or it is the diphthong *ēa* (Teut. *au*). We may consider these separately.

60. Verbs containing a (long by position). There are two sets; one containing *an*, and one containing *al*. The chief A. S. verbs in the former set are: *bann-an*, to proclaim, whence E. *ban*; *bland-an*, to mix, whence E. *blend*; *fōn*, to seize, a contracted form allied to E. *fang*; *gang-an* or *gān*, to gang, go; and *hōn*, a contracted form allied to E. *hang*.

(a) The verb *bann-an*, to proclaim, is usually connected with Gk. *φά-σκω*, I say, *φη-μί*, I say, L. *fā-rī*, to speak, *fā-ma*, a rumour. Cf. Skt. *bha-na-ti*, 'he speaks.' The A. S. *bannan* is referred by Brugmann to a weak grade of the Idg. *ā*-series, the second grade of which has *ō*. Hence the root is **bhā*, to speak, Teut. **bā*. The second grade occurs in Gk. *φω-νή*, voice; whence E. *phonetic*, &c.

(b) The A. S. verb *fōn*, to seize, is contracted from

**fāhan*, as seen in Goth. *fāh-an*, to seize, where the long *ā* shows that a *n* has been lost before *h*, so that the original form was **fanh-an*; in fact, this *n* is preserved in the A. S. pp. *ge-fang-en* (with *g* for *h* by Verner's law; Primer of E. Etym., p. 85). Hence the A. S. *fang*, orig. 'a seizure,' but afterwards, in a transferred sense, 'a seizer,' a claw, &c. It is allied to the reduplicating L. verb *pang-ere* (pt. t. *pe-pig-ī*), to fasten; also to Gk. *πήγ-νυμι*, I fasten; also to L. *pac-iscī*, to agree (in the weak grade), where the *c* answers to Goth. *h*. The last is from Idg. root **pāk*; from the weak grade of which came Goth. *fag-rs*, suitable, A. S. *fæg-er*, E. *fair*.

(c) Parallel to the last is A. S. *hōn*, to hang, contracted from **hāhan*, as seen in Goth. *hāhan*, to hang, for **hanh-an*; cf. A. S. pp. *hang-en*, hung, and the weak verb *hang-ian*, to hang. From an Idg. root **kank*; whence also Skt. *ṣaṅk*, to hesitate, L. *cunc-tārī*, to delay.

The E. verbs in the second set that are still in use are *fall*, *fold*, *hold*, *walk*, and the secondary verb *wield*. Of these, only *fall* and *fold* are cognate with Latin or Greek; though *walk* may be allied to L. *uoluere*, Gk. *εἰλύειν*.

(d) The history of the verb *to fall*, A. S. *feall-an*, is uncertain. Some connect it with L. *fall-ī*, to be deceived, to err, passive of *fall-ere*, to deceive. If so, the common base would be **sphal-*, and they may then be connected with Gk. *σφάλ-λειν*, to deceive. This remains doubtful; perhaps it should be given up.

(e) The verb *to fold* is from O. Merc. *fald-an*, A. S. *feald-an*, answering to Goth. *falth-an*, to fold; the Teut. base being **falth*, from Idg. root **palt*. This appears in Gk. *πλάσ-σεν* (for **πλάτ-ζειν*), to form, mould, shape (*πλατ-* being the weak grade of *παλτ-*), whence E. *plastic*,

plaster, cataplasm; and, more clearly, in the derivative δι-πλάσιος (for *δι-πλάτ-ιος), with the exact sense of 'two-fold.' Cf. Russ. *plat-ite*, to patch.

61. **Roots containing Teutonic ai.** There are but two modern E. verbs of this class with A. S. *ā* (= Teut. *ai*) as a root-vowel. These are *to shed* and *to swoop*; the latter has no exact Greek or Latin cognate, though it appears to be connected with L. *uib-rāre*, to shake, to swing (whence E. *vibrate*), which may have lost an initial *s*.

The mod. E. verb *to shed* is from M. E. *schēd-en*, A. S. *scēad-an*, *sceād-an*, *scād-an*, allied to Goth. *skaid-an*, 'to part asunder,' which is the older sense. The O. Saxon *skēð-an*, O. Fries. *skēð-a*, to part, shed, show that the original final sound was *th*; so that the Teut. root was **skeith-*, from an Idg. root **skheit*. There can be little doubt that this was a by-form of, or closely related to the Idg. root **skheid*, to split, cleave, part, appearing in the weak grade **skhid* in Gk. σχίζειν (for σχιδ-ίζειν), to cleave, L. *scind-ere* (pt. t. *scid-ē*, and in Ennius *sci-cid-ī*), to cut; whence we have several derivatives, as *schism*, *schist*, *zest*, *abscissa*, *rescind*, but not the misspelt *scissors*.

62. **Roots containing Teut. *ê* = Goth. *ē* = Idg. *ē*.** Owing to the fact that A. S. turns Teut. *ēw* into *āw* (see § 49 (b)), the mod. E. verbs *blow*, *crow*, *know*, *mow*, *sow*, *throw*, A. S. *blāw-an*, *crāw-an*, *cnāw-an*, *māw-an*, *sāw-an*, *prāw-an*, all contain Idg. *ē*. The verb *to know* has already been explained in connexion with *ken* in § 49 (b). *Crow* is Teutonic, Slavonic, and Lithuanian only.

(a) Root **bhlē*, to blow (as wind); Teut. **blē*. Cf. Gk. φλη-νος, φλη-ναφος, idle talk; Goth. *uf-blē-san*, to blow up, to puff up. A variant root, of the form **bhlā*, appears in L. *flā-re*, to blow.

(b) Root **mē*, to mow ; Teut. *mē*. Gk. ἄ-μη-τος, a reaping ; A. S. *mē-d*, E. *mead* ; dat. case *mēd-we*, whence E. *meadow*. The weak grade occurs in Gk. ἀ-μά-ω, I reap, L. *me-to* (for **mō-to*), I reap.

(c) Root **sē*, to sow ; Teut. **sē*. Gk. ἱ-η-μι (for **σί-ση-μι*), I throw, cast ; ἦ-μα (for **σῆ-μα*), a missile ; L. *sē-wī*, I sowed, *sē-men*, seed ; A. S. *sē-d*, seed, E. *seed* ; A. S. *sāwan* (for **sē-wan*), to sow.

(d) Root **ter*, to pass through, penetrate (see § 50 (i)) ; whence the lengthened grade **trē*, as in Gk. τρη-τός, bored through, τρη-μα, a hole. From this base **trē*, with the sense of boring or twisting, was taken the Germanic root **thrē*, to twist, as in the A. S. *þrē-d*, a twist, a twisted thread, E. *thread* ; as well as the verb *throw*, A. S. *þrā-wan*, to twist, whirl, hurl. The old sense of *throw* is remarkably preserved in the prov. E. *throw-er*, a turner in wood, or a potter who works a wheel.

63. A. S. verbs containing *ē*. These are represented by the mod. E. *dread*, *greet* (to weep), *let*, M. E. *lēt-en*, to permit, *sleep*, and *wheeze* ; A. S. *drēd-an*, *grāt-an*, *lēt-an*, *slēp-an*, **hwēs-an*. The two first are not found in Greek or Latin.

(e) Root **lēd*, to be weary, let go ; Teut. **lēt*. Brugmann, i. § 478, quotes O. Gk. ληδ-εῖν, to be weary, answering to A. S. *lēt-an*, to let, permit, also to let go, give up. The weak grade **lad* occurs in L. *las-sus* (for **lad-tus*), tired, wearied, and in A. S. *læt*, sluggish, tardy, E. *late*.

(f) Root **slēb*, to be relaxed, to sleep ; Teut. **slēp*. A similar root **slāb*, is supposed to occur in the L. *lāb-ī*, to glide, *lāp-sāre* (for **lāb-sāre*), to slide, slip, lapse ; where initial *s* is lost before the consonant, as in other instances

in Latin. The A. S. verb is *slæp-an*, whence E. *sleep*. The weak grade is seen in L. *lab-āre*, to totter, Russ. *slab-iii*, slack, weak.

(g) The A. S. form for *wheeze* was probably *hwæðs-an*; the verb only occurs in the 3rd pers. sing. indic. *hwæst*, he wheezes. It answers to Idg. **quēs*, a long grade of the root *ques-*, as seen in Skt. *çvas*, to pant, snort, hiss, and in L. *ques-tus*, pp. of *quer-or* (for **ques-or*), I complain, lament, bewail, *quer-ulus*, uttering a plaintive sound; whence E. *querulous*.

64. A. S. verbs containing *ō*. We still retain the verbs *blow* (to bloom, flourish), *flow*, *grow*, *row*; A. S. *blōwan*, *flōwan*, *grōwan*, *rōwan*. To these we may add A. S. *spōw-an*, to succeed, thrive; and the A. S. *wēpan* (for **wōp-ian*, with the usual mutation of *ō* to *ē*), to weep.

(a) Root **bhlō*, to bloom; Teut. **blō*. L. *flō-r-ēre*, to bloom, flourish, whence E. *flourish*; *flō-s*, acc. *flō-r-em*, a flower, whence E. *flower* and *flour*, also *floral*. A. S. *blō-wan*, to blow, bloom, E. *blow*; whence also *bloom*, O. Norse *blō-m*; *blossom*, A. S. *blō-s-t-ma*; and probably *blood*, A. S. *blō-d*, considered as the sign of flourishing life. Weak grade: Idg. **bhlō-tóm*, Teut. **blō-dóm*, a leaf, blade of grass; A. S. *blæd*, E. *blade*.

(b) E. *grow*, A. S. *grō-wan*, is cognate with O. H. G. *gruo-an*, to be green, to be verdant; since A. S. *ō* = O. H. G. *uo*. The O. H. G. *gruo-an* has a derivative adj. *gruo-ni*, corresponding to A. S. *grē-ne*, green (for **grōn-īoz*, with mutation of *ō* to *ē*, as usual); so that *green* is a derivative of *grow*, and meant, originally, fresh, verdant, like young grass and shoots. Another derivative of O. H. G. *gruo-an* is M. H. G. *gruo-se*, a fresh young shoot, a verdant growth, to which (in the weak grade) corre-

sponds A. S. *græs*, E. *grass*. Some connect A. S. *grō-wan* with L. *grā-men*, grass; since A. S. *ō* = L. *ā*.

(c) E. *row*, A. S. *rō-wan*, is from an Idg. base **rō*, whence also A. S. *rō-ðer*, a paddle to row or steer with, E. *rudder*. We also find an Idg. base **rē*, to row, whence L. *rē-mus*, an oar, if it represents **rē-smos*; see Brugmann, i. § 877. Both **rō* and **rē* are lengthened grades of the disyllabic Idg. root **ere*, to row, whence Gk. *ῥο-ετμός*, a paddle, oar, Lithuan. *ir-ti*, to row.

(d) The A. S. *spō-wan*, to thrive, survives in the derived sb. *spē-d* (for **spō-diz*, with the usual *i*-mutation of *ō* to *ē*), E. *speed*, the original sense being 'success'; whence the phrase 'God speed the plough.' Though not found in Greek or Latin, the sb. *speed* is precisely the Skt. *sphātiṣ*, increase, prosperity, from Skt. *sphāy*, to enlarge. The accent of Skt. *sphā-tiṣ* was on the latter syllable, so that the *t* corresponds to A. S. *d*, by Verner's Law.

(e) E. *weep*, A. S. *wēp-an*, represents a Teut. type **wōp-ian* (with *i*-mutation of *ō* to *ē*), as also in Goth. *wōp-jan*, to cry aloud. And **wōp-ian* is formed regularly from A. S. *wōp*, O. Sax. *wōp*, an outcry.

65. A. S. verbs containing *ēa*. There are three reduplicating verbs that contain A. S. *ēa*, viz. *beat*, *hew*, and *leap*; A. S. *bēat-an*, *hēaw-an*, and *hlēap-an*. The A. S. *ēa* invariably represents Teut. *au*, so that the corresponding Gothic forms are **bautan*, **hauwan*, *hlaupan*, the last of which actually occurs. Of these three, the second alone occurs in Latin. The form **hau-wan*, from Idg. root **geu*, is allied to L. *cū-d-ere*, to strike, whence the derivative *in-cūs*, accus. *in-cūd-em*, an anvil. The root is **geu*, with a 'middle' guttural, and not **keu* (see § 22) because these words are further related to Russ,

kovate, to hammer; and the exact quality of the Greek, Latin, and German gutturals is usually determined by consulting Sanskrit, Zend, Lithuanian, or Slavonic.

These reduplicating verbs furnish examples of roots with Idg. *long vowels*, of which there are three sets. First: the *ē*-series; second grade, *ō*. Second: the *ā*-series; second grade, *ō*. Third: *ō* series (with no second grade). All have a weak grade, either containing *ə* (a short indeterminate vowel) or else no vowel at all. In the above examples, the *ē*-series is seen in § 62 and § 63; the *ā*-series, in § 60 (*a*), (*b*); and the *ō*-series in § 64 (*a*).

The complete set of Idg. root-vowels is as follows: (1) *e* [as in *ei*, *eu*, *e* before two consonants, *e* before *l*, *m*, *n*, *r*, simple *e*]; (2) *a*; (3) *o*; (4) *ē*; (5) *ā*; (6) *ō*. Examples of all of these have been given; for the third see § 58 (*e*).

CHAPTER XII

CONCLUDING REMARKS

66. THE examples given in the preceding chapters are sufficient for exhibiting some of the main points that have to be considered when we compare Greek and Latin words with native English ones. We have to look (1) to the consonants, which should correspond in such a way as to be subject to Grimm's Law, and (if necessary) to Verner's Law also; and (2) to the vowels, which should be such as to comply with the laws of gradation. The latter test is frequently the more subtle—yet really the more certain—of the two, and not unfrequently shows that connexions which seem otherwise plausible turn out to be very doubtful or wholly mistaken.

A famous example occurs in the case of the apparent connexion between the L. *caput*, Gk. κεφαλή, and E. *head*, A. S. *hēafod*. Brugmann and Uhlenbeck regard the Gk. κεφαλή as allied to the O. H. G. *gebal*, 'skull,' which is in no way allied to E. *head*, but rather (with gradation of Teut. *e* to Teut. *a*, § 53) to E. *gable*. Secondly, the L. *caput* is to be connected with Skt. *kapāla(m)*, the skull, and A. S. *hafela*, the head, which is quite distinct from *hēafod*. And thirdly, the *ēa* in A. S. *hēafod* corresponds to Teut. *au*, and *hēafod* is, accordingly, precisely the Goth. *haubith* and G. *Haupt*, 'head'; and the corresponding Idg. type would be **koupet-* or **koupst-*, the only possible gradations of **koup-* being **keup-*, **kup-*, or **kūp-*, but not **kap-*. Hence we must either admit that there is no con-

nexion between *caput* and *head*; or else, that if any connexion exists, it has not hitherto been explained or proved.

67. Another great difficulty occurs in the attempt to connect L. *oculus* with the E. *eye*. We find, on the one hand, a clear connexion between Gk. ὀπ-ωπ-α, I have seen (whence E. *optic*), ὄσ-αε (for *oq-īē), the two eyes, L. *oc-ulus*, O. Church Slavonic *ok-o*, Lithuan. *ak-ìs*, eye (all from Idg. root *oqy, to see); and, on the other hand, between Goth. *aug-ō*, O. Norse *aug-a*, A. S. *ēag-e*, O. Sax. *ōg-a*, Du. *oog-e*, G. *aug-e*, eye (all from a Teut. base *aug-, which may correspond to an Idg. base *ouqy). But the difficulty is to connect the *o* in *oqy- with the *ou* in *ouqy-; since the gradations of *ou* are only *eu*, *u*, and *ū*, but not *o*. Various theories have been proposed (see Uhlenbeck, Etym. Goth. Dict.) in order to reconcile this awkward disagreement. Perhaps the most ingenious is this:—that the Teutonic base of ‘eye’ was really *ag- (regularly), but was altered to *aug- by association with the very similar word for ‘ear,’ which was Goth. *aus-ō*, A. S. *ēar-e*, O. Sax. *ōr-a*, Du. *oor*, G. *ohr*. The chief lesson for the student in this case is that he should be able to apprehend how grave a difficulty really lies in the way of the attempt to connect L. *oc-ulus* with A. S. *ēag-e*; simply from a want of relation between the vowel-sounds.

68. On the other hand, as has been already noted in § 41, we may readily admit relationship between words of like sense in which the consonants regularly correspond, provided that the vowels are either equivalent ones or are related by gradation. And for this purpose it makes no practical difference whether the roots are discoverable or not. And we may, for this purpose,

start from *any* English, Latin, or Greek form, and consider its possibilities. Three examples will show the method to be pursued. The words are selected almost at random; I merely avoid such as have been discussed already.

(a) What Gk. words (if any) are allied to E. *mood*?

E. *mood* = A. S. *mōd*. The A. S. *-d* is often a suffix; cf. A. S. *flō-d*, E. *flood* (§ 43 (m)). But *mō-* is the second grade of *ma* (§ 57); and this occurs in Gk. **μά-ω*, I strive after, desire eagerly, as in the partic. *με-μα-ώς*; also in *μα-μά-ω* (with reduplication), I am very eager; cf. *μα-τέω*, *μα-τεύω*, I seek after. The A. S. grade *mō-* appears in the fut. *μαι-μή-σω*; cf. 3 plu. *μαι-μώ-ωσι*, and *μῶ-μαι*, I seek after. As to the sense, we may compare G. *mu-th*, A. S. *mō-d*, 'courage, high spirit'; the Gk. words suggest 'strenuousness,' which, in the old usage of the E. word, is often intended.

(b) What are the cognates of E. *with*e or *withy*, a flexible twig?

The A. S. *wið-ig* means 'willow.' As *i* is the weak grade of Idg. *ei* (*oi*), whilst Idg. *ei* = L. *ī*, and A. S. *ð*, L. *t* are equivalent, we may obviously compare *withy* with L. *uīt-is*, 'a vine,' and *uīt-ex*, the 'chaste tree' or *agnus castus*. Also with Gk. *ιτ-έα*, 'willow,' where the *ι* is long; answering to the 'weakened grade' in the *drive*-conjugation; § 41 (i). We can hardly dissociate L. *uī-tis*, 'vine,' from L. *uī-men*, a twig; both are from the Idg. root **wei*, to twine.

(c) Can we connect *meed* with Gk. *μισθός*?

Supposing the accent on the final syllable of *μισθός* to represent the position of the Idg. stress, then Gk. *μισθός* = Teut. **mizdōz* [final *s* always = final Teut. *z*]. This

appears in Gothic (but changed to the feminine gender) as *mizdō*; and in A. S. (with *r* for *z*, by Verner's Law, see Primer of E. Etym., § 70, p. 85) we should expect a form **mird*; but, by a special law of A. S. phonetics, *ir* > *eor* when a consonant follows, so that the actual form is *meord*, fem. There was also a West Germanic form in which the vowel was lengthened from *i* to *ē*, with loss of the *z*; this appears in O. Sax. *mieda*, *mēda*, O. H. G. *miata*, *mieta*, *mēta* (G. *miethe*, *miete*), A. S. *mēd*, fem.; whence E. *meed*. The senses of *μισθός*, *meord*, and *mēd* are identical. The Skt. form is *miḍhām*.

69. It must not be supposed that a knowledge of Grimm's Law, and an intelligent attention to the laws of gradation and mutation, as exemplified in the preceding pages, will suffice to enable the student to solve more than a few etymologies of the easier sort. In any fresh example, further knowledge of more minute phonetic laws of either Greek, Latin, or English may be required. All that has been done is to give an outline of the *kind* of knowledge which is requisite. A few questions are appended that do not require further information than such as has been already given or can be found in my Concise Etymological Dictionary.

70. I also append two tables for convenient reference. The former has already been given, in a fuller form, in the Primer of E. Etym., p. 80; but I here omit the columns referring to Sanskrit, Lithuanian, Slavonic (and also Irish), as this enables me to omit an account of the 'middle' gutturals (§ 22).

The second table of equivalent vowels and diphthongs gives a practical summary of the vowel-gradations explained above.

TABLE I.—REGULAR SUBSTITUTION OF CONSONANTS.

In the following table, the Indo-Germanic symbols are on the *left*, and the Teutonic (or Germanic) on the extreme *right*. On comparing these, the corresponding consonants in the various languages are perceived. Only the *more usual* correspondences are given. The Latin symbols within a parenthesis occur only *medially*. The Gothic and A. S. symbols within square brackets are due to Verner's Law.

Idg.	Gk.	Lat.	Goth.	A.S.	Teut.
GH G K	χ γ κ	h, f (g) g c	g k h [g]	g c h [g]	G K H
GwH Gw Q	χ, φ, θ γ, β, δ π, κ, τ	{ g, h, f } { (gu, v) } g, v qu, c	g kw, k hw, h	g cw, c hw, h	Gw, G Q, K Hw
DH D T	θ δ τ	f (d, b) d, l t	d t th [d]	d t þ [d]	D T TH
BH B P	φ β π	f (b) b p	b p f [b]	b, f p f	B P F

See Primer of E. Etym., pp. 80, 81.

TABLE II.—REGULAR SUBSTITUTION OF VOWELS.

Idg.	Gk.	Lat.	Goth.	A.S.	Teut.
EI	ει	ī	eī	ē	(EI), î
OI	οι	oe, ū, ī	ái	ā	AI
I (Ī)	ι (ĩ)	ĩ (i)	i (eī)	i (ĩ)	I (Ī)
EU	ευ	ū	iū	ēo	EU
OU	ου	au, ū, ō	áu	ēa	AU
U (Ū)	υ (ũ)	ũ (ū)	u, au (ū)	u, o (ũ)	U (Ū)
EN	εν	en, in	n	in	IN
ON	ον	on	an	an	AN
η	α, αϣ	en, in	un	un	UN
ER	ερ	er	air	er, eor	ER
OR	ορ	or	ar	ar, ær, ear	AR
ι	αρ, ρα	or	aur, ur	or, ur	UR
E	ε	e	ai, i	e	E
O	ο	o (u)	a	a, æ	A
ə	α	α	i	e, æ	ə
Λ	α	a	a	a, æ, ea	Λ
Ā	ā, η	ā	ō	ō	Ō
Ē	η	ē	ē	æ	Æ
Ō	ω	ō	ō	ō	Ō

The use of *ai*, *au* for *ē*, *ō* in Gothic is probably merely a graphic device, because the Gothic *e* and *o* represent only the *long* vowels (*ē*, *ō*).

QUESTIONS.

1. Explain the *y* in *asylum*, *cyst*, *dynasty*, *hyena*, *python*; the *eo* in *Georgic*; the *he* in *hecatomb*, *helot*, *hemisphere*, *hemorrhage*; the *e* in *pedagogue*, *federal*, *female*; and the *u* in *liturgy*, *octopus*, *utopian*.

2. Explain the *rh* in *rhinoceros*; *ph* in *neophyte*, *diaphanous*; *f* in *fantastic*; *rrh* in *catarrh*; *ch* in *patriarch*, *scheme*; *c* and *s* in *ecstasy*; *gue* in *catalogue*; *h* in *polyhedron*; *th* in *method*; *x* in *syntax*.

3. Explain the *c* in *pact*; the former *m* in *emblem*; *pt* in *diptych*; *i* in *impinge*; the former *i* in *precipice*; *e* in *infection*; *u* in *desultory*; *ei* in ἀγείρω; *σ* in πίστις.

4. Trace the connexion between θυμός and *fūmus*; between θῆλυς and *fēmina*; between E. *corn* and *grānum*; between τίσις and ποιμή; τε and *que*; βαρύς and *gravis*; French *larme* and E. *tear*, sb. Show that E. *deer* (A. S. *dēor*) is not allied to θήρ, nor E. *care* to L. *cūra*.

5. By comparison with Latin, restore the original initial letter of ἔρπειν, οἶκος, ἔπομαι, ἔπος, ὄλος. By comparison with English, restore the original initial letter of ὁμός, ναίνα, ἄλς, νίός, ὀράω.

6. Account for the *r* in *veteran*, *funereal*, *nefarious*, *confederate*. Explain the connexion between *precor*, *procus*; *neco*, *nocēre*; *pedem*, πόδα; *tentus*, τατός; βένθος, βάθος.

7. Show how to connect *stigmatise* with *instigate*; χεῖμα with L. *hibernus*; *chameleon* and *chamomile* with *humble*; and compare E. *slow* (A. S. *slāw*) with L. *laevis* and Gk. λαιός.

8. Connect E. *few* (A. S. *fēawe*, pl.) with παῦρος, *paucus*. Compare E. *steer*, an ox (A. S. *stēor*), with L. *taurus*.

Compare E. *clew*, *clue* (A. S. *clīwen*, *clēowe*) with L. *glomus*; can *clue* be allied to E. *globe*?

9. Compare κίβος, 'the hollow near the hips of cattle,' with E. *hip* (A. S. *hype*). Show that the *-ine* in *swine* is of adjectival origin. Explain the connexion between *cow* and *beef*.

10. Compare E. *court* (of French origin) with E. *yard*, an enclosure; γένυς with E. *chin* (A. S. *cinn*); γόνυ with *genu* and E. *knee*; E. *tree* (Goth. *triu*) with Gk. δρῦς; and γέρανος with L. *grus*, E. *crane*.

11. Connect Gk. φλέγειν with L. *fulgēre* and *flāgrāre*. Also πέδη with E. *impediment* and E. *fetter* (A. S. *fetor*). Explain the derivation of *school* and *scheme* from Gk. ἔχειν; and the connexion of L. *fāgus* with *beech* and *book*.

12. Explain the forms of the following words by Verner's Law, comparing them with Greek. E. *angle*, to fish, from A. S. *angel*, a fish-hook, compared with Gk. ἀγκύλος, bent; E. *hund-* in *hundred*, Gk. ἑκατόν; A. S. *mid*, i. e. 'with,' Gk. μετά; E. *-ty* in *twen-ty*, A. S. *-tig*, Goth. *-tigus*, Gk. δεκάς; A. S. *and-* in *and-svarian* (E. *an-swer*), Gk. ἀντί; A. S. *hlūd* (E. *loud*), κλυτός; E. *hard*, Gk. κρατός.

13. Give a list of all the grades of roots that contain an *e*: (1) in Greek; (2) in Latin; (3) in Anglo-Saxon.

14. Compare the E. verb *to bore* with *perforate* and *pharynx*; the verb *to break* with *fragile*; and the verb *to bereave* with *robe*, *rob*, and *rupture*.

INDEX OF ROOTS

THE following index ought to be a sufficient guide to finding the words discussed, if taken in connexion with the tables given in § 70. The roots are given in the Idg. form, with their Teutonic equivalents within a parenthesis. For English words beginning with *b*, see *bh*; with *c*, see *g*, *sq*; with *d*, see *dh*; with *f*, see *p*, *sph*; with *g*, see *gh*; with *h*, see *k*, *q*, *sq*; with *k*, see *g*; with *sh*, see *skh*, *sq*; with *str*, see *sr*; with *t*, see *d*; with *th*, see *t*, *st*. The references are to the sections, not to the pages. Thus the root *ag* is discussed in § 57 (a).

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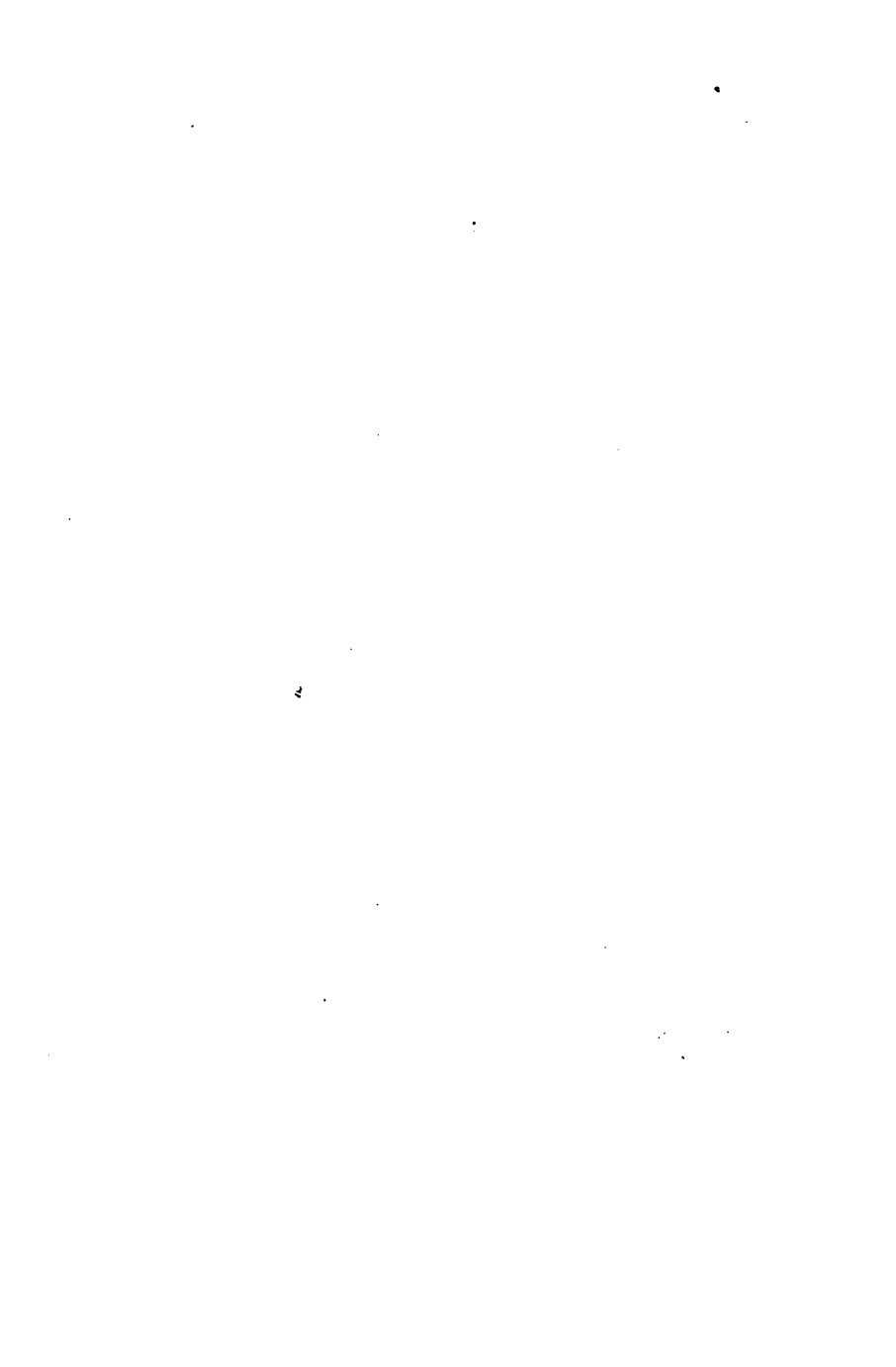
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